

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY
AGENDA ITEM REQUEST
for Proposed Revision to the State Implementation Plan

AGENDA REQUESTED: August 22, 2012

DATE OF REQUEST: August 3, 2012

INDIVIDUAL TO CONTACT REGARDING CHANGES TO THIS REQUEST, IF NEEDED: Joyce Spencer-Nelson, (512) 239-5017

CAPTION: Docket No. 2012-1087-SIP. Consideration for publication of, and hearing on, proposed Federal Clean Air Act (FCAA), Section 110(a)(1) and (2) Infrastructure and Transport State Implementation Plan (SIP) Revision for the 2008 Ozone National Ambient Air Quality Standards.

The proposed SIP revision would outline the requirements of FCAA, Section 110(a)(2)(A) through (M) and the Texas provisions supporting the requirements. These requirements include basic program elements such as enforceable emission limitations and control measures, air quality monitoring and modeling, a permitting program, adequate funding and personnel, authority under state law to carry out the plan, emissions reporting, emergency powers, public participation, and fee collection. This SIP revision would also include a technical demonstration to support that Texas meets the interstate transport requirements of FCAA, Section 110(a)(2)(D)(i)(I). (Shelley Naik, Amy Browning) (Non-Rule Project No. 2012-004-SIP-NR)

Jayne Sadlier for Steve Hagle, P.E.
Deputy Director

Kim Herndon for David Brymer
Division Director

Joyce Spencer-Nelson
Agenda Coordinator

Copy to CCC Secretary? NO

Texas Commission on Environmental Quality

Interoffice Memorandum

To: Commissioners

Date: August 3, 2012

Thru: Bridget C. Bohac, Chief Clerk
Zak Covar, Executive Director

From: Steve Hagle, P.E., Deputy Director
Office of Air

Docket No.: 2012-1087-SIP

Subject: Commission Approval for the Proposed Federal Clean Air Act (FCAA), §110(a)(1) and (2) Infrastructure and Transport State Implementation Plan (SIP) Revision for the 2008 Ozone National Ambient Air Quality Standards (NAAQS)

Infrastructure and Transport SIP Revision for the 2008 Ozone NAAQS
Non-Rule Project No. 2012-004-SIP-NR

Background and reason(s) for the SIP revision:

On March 12, 2008, the United States Environmental Protection Agency (EPA) strengthened the NAAQS for ground level ozone. The new primary eight-hour ozone standard, set at 0.075 parts per million (ppm), replaced the previous 1997 standard of 0.08 ppm. The EPA also decreased the secondary eight-hour ozone standard to the level of 0.075 ppm making it identical to the revised primary standard. However, the EPA did not initially implement the 2008 eight-hour ozone standard due to a subsequent NAAQS reconsideration. To date, the EPA has not published infrastructure or transport guidance for the 2008 ozone NAAQS.

Section 110(a)(1) of the FCAA requires states to submit a SIP revision to provide for the implementation, maintenance, and enforcement of the NAAQS. States are required to submit the infrastructure portion of this SIP requirement to the EPA to demonstrate that basic program elements have been addressed within three years of the promulgation of any new or revised NAAQS. Section 110(a)(2) lists the elements that the new SIP submissions must contain.

On February 2, 2011, the TCEQ sent a letter to the EPA Region 6 to request formal clarification on several issues regarding the 2008 ozone NAAQS and the EPA's reconsideration of the standards. Specifically, the TCEQ asked whether the EPA intended that Texas develop and submit infrastructure and transport SIP revisions under the 2008 ozone standards by the March 12, 2011, deadline. On April 21, 2011, the EPA responded to the TCEQ stating, "As we stated earlier, EPA has not implemented the 2008 ozone standards by the deadline specified in the *Federal Register* (75 FR 2936). EPA has proposed that the 2008 ozone standards are insufficient to protect public health and welfare (75 FR 2938). EPA intends to take final action on the reconsideration by the end of July 2011 and at that time we will propose requirements for implementation, including the requisite infrastructure and transport elements." Based on this EPA direction, the TCEQ did not submit an infrastructure SIP revision by the March 12, 2011, deadline.

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On September 22, 2011, the EPA issued a memorandum to inform states the 2008 ozone NAAQS would be implemented. Implementation of the 2008 ozone NAAQS requires that the infrastructure SIP be submitted, although the original deadline of March 12, 2011, has already passed. The EPA has not indicated that it will issue a finding of failure to submit the required infrastructure SIP.

Submitting this SIP revision prior to a finding of failure to submit could avoid a possible federal implementation plan (FIP) by the EPA for any revisions to the Cross State Air Pollution Rule (CSAPR) associated with the 2008 ozone NAAQS. On April 25, 2005, the EPA issued Texas a finding of failure to submit the required transport SIP for the 1997 ozone standard. The EPA then relied on this notice to justify the inclusion of Texas in the FIP for the CSAPR even though Texas had subsequently submitted a transport SIP revision for the 1997 ozone standard that addressed the finding of failure to submit.

Scope of the SIP revision:

A.) Summary of what the SIP revision will do:

The proposed SIP revision would document how the infrastructure elements listed in FCAA, §110(a)(2) are currently addressed in the Texas SIP. The SIP revision would outline the requirements of FCAA, §110(a)(2)(A) through (M) and the Texas provisions supporting the requirements. These requirements include basic program elements such as enforceable emission limitations and control measures, interstate transport provisions, air quality monitoring and modeling, a permitting program, adequate funding and personnel, authority under state law to carry out the plan, emissions reporting, emergency powers, public participation, and fee collection.

The SIP revision would also include a technical demonstration to support that Texas meets the interstate transport requirements of §110(a)(2) of the FCAA. Pursuant to FCAA, §110(a)(2)(D)(i)(I), this SIP revision must provide supporting information demonstrating that emissions from Texas are not contributing significantly to nonattainment and not interfering with maintenance of the 2008 ozone NAAQS in any other state.

See the attached document for a complete list of FCAA, §110(a)(2) requirements.

B.) Scope required by federal regulations or state statutes:

The proposed SIP revision would document how the infrastructure elements listed in FCAA, §110(a)(2) are currently addressed in the Texas SIP. The SIP revision would outline the requirements of FCAA, §110(a)(2)(A) through (M) and the Texas provisions supporting the requirements.

C.) Additional staff recommendations that are not required by federal rule or state statute:

None

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Statutory authority:

The EPA published the final rule establishing the revised NAAQS for ozone in the *Federal Register* on March 27, 2008 (73 FR 16436). The authority to propose and adopt the SIP revision is derived from FCAA, 42 United States Code, §7410, which requires states to submit SIP revisions that contain enforceable measures to attain the NAAQS and other general and specific authority in Texas Water Code, Chapters 5 and 7 and Texas Health and Safety Code, Chapter 382.

Effect on the:

A.) Regulated community:

This SIP revision contains no new control measures and will not affect the regulated community.

B.) Public:

None

C.) Agency programs:

This SIP revision would have no new effect on agency programs.

Stakeholder meetings:

The proposed SIP revision will go through a public review and comment period including a public hearing.

Potential controversial concerns and legislative interest:

EPA Disapproval Notices:

The EPA has published various proposed disapproval notices for Texas' air permitting programs, and these disapprovals have not yet been fully resolved. Texas has adopted new rules that address all of these notices and has committed to working closely with the EPA to ensure that these rulemaking efforts will result in rules that are approvable by the EPA. Since the EPA has not acted on the rules, the infrastructure submittal may or may not be fully approvable.

The EPA has also proposed limited approval/limited disapproval of the commission's rules regarding public participation for air quality New Source Review (NSR) permits. This proposed action has a potential direct impact on the infrastructure requirements of FCAA, §110(a)(2). Texas has withdrawn from EPA consideration most of the rules that were the subject of the proposed limited approval/limited disapproval and has submitted new and revised adopted public participation rules to the EPA for the SIP. On October 28, 2010, the EPA signed a notice withdrawing its limited approval and limited disapproval of the SIP revisions relating to public participation because those revisions are no longer before the EPA for review. Although the EPA has disapproved various elements of Texas' air permitting programs, those concerns are being addressed with newly adopted rules and a commitment to work closely with EPA staff to issue EPA-approvable rules. Texas has a

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robust, SIP-approved permitting program and therefore has met the infrastructure requirements of §110(a)(2).

Previous Transport Submittals:

The TCEQ submitted a FCAA, §110(a)(2)(D)(i) SIP revision for the 1997 eight-hour ozone standard in April 2008 with receipt acknowledged by the EPA as of May 5, 2008. Because Texas was not originally included in the CAIR program for the 1997 ozone standard, the state did not rely solely on CAIR modeling in meeting this SIP obligation and identified state-level controls adopted for major point sources, along with their associated emission reductions, and other Texas SIP revisions that would address Texas' §110(a)(2)(D)(i)(I) obligations.

The revision was deemed by operation of law as of November 5, 2008, to meet minimum completeness requirements, in accordance with §110(k)(1) of the FCAA. The EPA was therefore required to take action regarding full, partial, or conditional approval or disapproval for this revision within 12 months of the completeness determination but minimally was required to do so prior to any transport rule FIP finalization for Texas regarding the 1997 ozone NAAQS. However, the EPA relied on the 2005 notice of failure to submit to justify including Texas in the FIP in the final CSAPR. While the EPA's reliance on the 2005 notice of failure to submit is not appropriate, the EPA may use the same approach to include Texas in future revisions of CSAPR if a finding of failure to submit is issued for the 2008 ozone NAAQS.

While the TCEQ currently has no indication that the EPA will issue a finding of failure to submit the required 2008 eight-hour ozone infrastructure SIP, the EPA could do so at any time because the March 12, 2011, deadline has passed. In a September 22, 2011, memo regarding the implementation of the 2008 NAAQS, the EPA stated that it does not intend to penalize states for the passage of time due to the delay in implementation. However, the EPA may still face litigation on this issue.

Previous Infrastructure Submittals:

Texas was issued a finding of failure to submit its infrastructure SIP revision for the 1997 eight-hour ozone NAAQS on March 27, 2008. On April 4, 2008, Texas submitted a letter and supporting documentation to address any potential infrastructure issues associated with the 1997 eight-hour ozone and fine particulate matter (PM_{2.5}) NAAQS that fulfilled its infrastructure SIP obligations. On September 14, 2010, Earthjustice sued the EPA on behalf of the Sierra Club seeking to compel promulgation of a FIP for Texas for the ozone standard and to take final approval or disapproval action on Texas' PM_{2.5} submittal.

In the December 28, 2011, *Federal Register*, the EPA determined that the Texas SIP meets the infrastructure requirements for the 1997 eight-hour ozone NAAQS and the 1997 and 2006 PM_{2.5} NAAQS at FCAA, §110(a)(2)(A), (B), (E), (F), (G), (H), (K), (L), (M), and portions of (C), (D)(ii), and (J). The EPA determined that the Texas SIP does not meet the infrastructure requirements for the 1997 eight-hour ozone NAAQS and the 1997 and 2006

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PM_{2.5} NAAQS at FCAA, §110(a)(2) for portions of (C), (D)(ii), and (J) because Texas has stated it cannot issue permits for and does not intend to regulate greenhouse gas (GHG) emissions. The EPA partially approved and partially disapproved the Texas SIP revisions to address the Prevention of Significant Deterioration requirements at FCAA, §110(a)(2)(D)(i) for the 1997 eight-hour ozone NAAQS and the 1997 and 2006 PM_{2.5} NAAQS again because Texas cannot issue permits for emissions of GHG. Texas is challenging the EPA's partial disapproval of the previous infrastructure SIP revisions; however, because the basis for the EPA's partial disapproval was the lack of a GHG permitting program in Texas, the EPA will likely use the same criteria when determining if any future infrastructure SIP revisions may be approved.

Will this SIP revision affect any current policies or require development of new policies?

No

What are the consequences if this SIP revision does not go forward? Are there alternatives to this SIP revision?

The infrastructure and transport SIP revision is required by §110(a) of the FCAA. If a SIP revision is not submitted, the EPA may promulgate a FIP for Texas.

Key points in the proposal SIP revision schedule:

Anticipated proposal date: August 22, 2012

Anticipated *Texas Register* publication date: September 7, 2012

Public hearing date: September 25, 2012

Public comment period: August 24, 2012 to September 28, 2012

Anticipated adoption date: January 2013

Agency contacts:

Shelley Naik, SIP Project Manager, 239-1536, Air Quality Division

Amy Browning, Environmental Law Division, 239-0891

Terry Salem, Environmental Law Division, 239-0469

Attachment

cc: Chief Clerk, 2 copies
Executive Director's Office
Susana M. Hildebrand, P.E.
Anne Idsal
Curtis Seaton
Tucker Royall
Office of General Counsel
Shelley Naik
Joyce Spencer-Nelson

Attachment – Federal Clean Air Act (FCAA), §110(a)(2)(A) through (M)

- §110(a)(2)(A) include enforceable emission limitations and other control measures, means, or techniques (including economic incentives such as fees, marketable permits, and auctions of emissions rights), as well as schedules and timetables for compliance, as may be necessary or appropriate to meet the applicable requirements of the FCAA;
- §110(a)(2)(B) provide for establishment and operation of devices, methods, systems, and procedures necessary to – (i) monitor, compile, and analyze data on ambient air quality, and (ii) upon request, make such data available to the EPA;
- §110(a)(2)(C) include a program to provide for enforcement of measures described in §110(a)(2)(A), and regulation of the modification and construction of any stationary source within the areas covered by the plan as necessary to assure that NAAQS are achieved, including a permit program as required in parts (C) and (D);
- §110(a)(2)(D) contain adequate provisions – (i) prohibiting any source or other type of emissions activity from emitting any air pollutant in amounts which will – (I) contribute significantly to nonattainment in, or interfere with maintenance by, any other State with respect to any such national primary or secondary ambient air quality standard, or (II) interfere with measures required to be included in the applicable implementation plan for any other state under part (C) to prevent significant deterioration of air quality or to protect visibility, (ii) insuring compliance with the applicable requirements of §126 and §115 (interstate and international pollution abatement);
- §110(a)(2)(E) provide (i) necessary assurances that the state will have adequate personnel, funding, and authority under state law to carry out such implementation plan (and is not prohibited by any provision of federal or state law from carrying out such implementation plan or portion thereof), (ii) requirements that the state comply with the requirements respecting state boards under §128, and (iii) necessary assurances that, where the state has relied on a local or regional government, agency, or instrumentality for the implementation of any plan provision, the state has responsibility for ensuring adequate implementation of such plan provision;
- §110(a)(2)(F) require, as may be prescribed by the EPA – (i) the installation, maintenance, and replacement of equipment, and the implementation of other necessary steps, by owners or operators of stationary sources to monitor emissions from such sources, (ii) periodic reports on the nature and amounts of emissions and emissions-related data from such sources, and (iii) correlation of such reports by the State agency with any emission limitations or standards established pursuant to the FCAA, which reports shall be available at reasonable times for public inspection;
- §110(a)(2)(G) provide for authority comparable to that in §303 and adequate contingency plans to implement such authority;
- §110(a)(2)(H) provide for revision of such plan – (i) from time to time as necessary to take account of revisions of such national primary or secondary ambient air quality standard or the availability of improved or more expeditious methods of attaining such standard, (ii) except as provided in (3)(C), whenever the EPA finds on the basis of information available to the EPA that the plan is substantially inadequate to attain the NAAQS which it implements or to otherwise comply with any additional FCAA requirements;

- §110(a)(2)(I) in the case of a plan or plan revision for an area designated as a nonattainment area, meet the applicable requirements of part(D) of this subchapter (relating to nonattainment areas);
- §110(a)(2)(J) meet the applicable requirements of §121 (relating to consultation), §127 (relating to public notification), and part (C) (relating to prevention of significant deterioration of air quality and visibility protection);
- §110(a)(2)(K) provide for (i) the performance of air quality modeling as the EPA may prescribe for the purpose of predicting the effect on ambient air quality of any emissions of any air pollutant for which the EPA has established a NAAQS, and (ii) the submission, upon request, of data related to such air quality modeling to the EPA;
- §110(a)(2)(L) require the owner of a major stationary source to pay to the permitting authority, as a condition of any permit required under the FCAA, a fee sufficient to cover – (i) reasonable costs of reviewing and acting upon any application of such a permit, and (ii) if the owner or operator receives a permit for such a source, the reasonable costs of implementing and enforcing the terms and conditions of the permit (not including any court costs or other costs associated with any enforcement action), until such fee requirement is superseded with respect to such sources by the EPA’s approval of a fee program under Title V; and
- §110(a)(2)(M) provide for consultation and participation by local political subdivisions affected by the plan.

REVISIONS TO THE STATE OF TEXAS AIR QUALITY
IMPLEMENTATION PLAN FEDERAL CLEAN AIR ACT, SECTIONS
110(a)(1) AND (2) INFRASTRUCTURE AND TRANSPORT

INFRASTRUCTURE DEMONSTRATION AND TRANSPORT PLAN
FOR OZONE



TEXAS COMMISSION ON ENVIRONMENTAL QUALITY
P.O. BOX 13087
AUSTIN, TEXAS 78711-3087

**FEDERAL CLEAN AIR ACT, SECTIONS 110(a)(1) AND (2)
INFRASTRUCTURE AND TRANSPORT STATE
IMPLEMENTATION PLAN REVISION FOR THE 2008
OZONE NATIONAL AMBIENT AIR QUALITY STANDARDS**

Project Number 2012-004-SIP-NR

Proposal
August 22, 2012

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EXECUTIVE SUMMARY

This proposed revision to the state implementation plan (SIP) for ozone infrastructure and transport is intended to meet the infrastructure requirements of the Federal Clean Air Act (FCAA), §110(a). States are required by §110(a)(1) of the FCAA to submit SIP revisions to meet the infrastructure requirements within three years of promulgation of new or revised National Ambient Air Quality Standards (NAAQS). On March 12, 2008, the United States Environmental Protection Agency (EPA) strengthened the NAAQS for ground level ozone. The new primary eight-hour ozone standard, set at 0.075 parts per million (ppm) replaced the previous 1997 standard of 0.08 ppm. The EPA also strengthened the secondary eight-hour ozone standard to the level of 0.075 ppm making it identical to the revised primary standard. This proposed SIP revision would document that the Texas SIP at 40 Code of Federal Regulations Part 52, Subpart SS contains all the infrastructure elements required by FCAA, §110(a)(2) for the implementation, maintenance, and enforcement of the 2008 ozone NAAQS. Because the infrastructure demonstration explains how the existing Texas statutes and rules will allow the state to meet its obligations under the FCAA, this SIP revision has been developed as an expansion of the existing Section V: *Legal Authority* section of Texas' SIP. This expanded section is unique to infrastructure SIP revisions that are submitted to meet the requirements of FCAA, §110(a)(1), and demonstrates that the state can provide for the implementation, maintenance, and enforcement of the NAAQS.

The infrastructure demonstration outlines the requirements of FCAA, §110(a)(2)(A) through (M) and the Texas statutes and rules that allow the Texas Commission on Environmental Quality to meet those requirements. The requirements include basic program elements such as enforceable emission limitations and control measures, air quality monitoring and modeling, a permitting program, adequate funding and personnel, authority under state law to carry out the plan, emissions reporting, emergency powers, public participation, and fee collection.

This SIP revision also includes a more detailed technical demonstration to meet the interstate transport requirements of FCAA, §110(a)(2)(D)(i)(I). Since this infrastructure element requires more than statutory authority, the requirement is discussed in the Section VI: *Control Strategy* portion of this SIP revision. The technical demonstration includes an analysis of ozone trends and discussion of existing ozone control strategies to demonstrate that emissions from Texas do not contribute significantly to nonattainment or interfere with maintenance of the 2008 ozone NAAQS in another state.

SECTION V: LEGAL AUTHORITY

- A. General (Revised)
- B. Infrastructure Demonstration for Lead (No change)
 - 1. 2008 Lead National Ambient Air Quality Standard (No change)
- C. Infrastructure Demonstration for Nitrogen Dioxide (No change)
 - 1. 2010 Nitrogen Dioxide National Ambient Air Quality Standard (No change)
- D. Infrastructure Demonstration for Ozone (New)
 - 1. 2008 Ozone National Ambient Air Quality Standards (New)

SECTION V-A: LEGAL AUTHORITY

A. General

The Texas Commission on Environmental Quality (TCEQ) has the legal authority to implement, maintain, and enforce the National Ambient Air Quality Standards (NAAQS) and to control the quality of the state's air, including maintaining adequate visibility.

The first air pollution control act, known as the Clean Air Act of Texas, was passed by the Texas Legislature in 1965. In 1967, the Clean Air Act of Texas was superseded by a more comprehensive statute, the Texas Clean Air Act (TCAA), found in Article 4477-5, Vernon's Texas Civil Statutes. The legislature amended the TCAA in 1969, 1971, 1973, 1979, 1985, 1987, 1989, 1991, 1993, 1995, 1997, 1999, 2001, 2003, 2005, 2007, 2009, and 2011. In 1989, the TCAA was codified as Chapter 382 of the Texas Health and Safety Code.

Originally, the TCAA stated that the Texas Air Control Board (TACB) is the state air pollution control agency and is the principal authority in the state on matters relating to the quality of air resources. In 1991, the legislature abolished the TACB effective September 1, 1993, and its powers, duties, responsibilities, and functions were transferred to the Texas Natural Resource Conservation Commission (TNRCC). With the creation of the TNRCC, the authority over air quality is found in both the Texas Water Code and the TCAA. Specifically, the authority of the TNRCC is found in Chapters 5 and 7. Chapter 5, Subchapters A - F, H - J, and L, include the general provisions, organization, and general powers and duties of the TNRCC, and the responsibilities and authority of the executive director. Chapter 5 also authorizes the TNRCC to implement action when emergency conditions arise and to conduct hearings. Chapter 7 gives the TNRCC enforcement authority. In 2001, the 77th Texas Legislature continued the existence of the TNRCC until September 1, 2013, and changed the name of the TNRCC to the TCEQ. In 2009, the 81st Texas Legislature, during a special session, amended section 5.014 of the Texas Water Code, changing the expiration date of the TCEQ to September 1, 2011, unless continued in existence by the Texas Sunset Act. In 2011, the 82nd Texas Legislature continued the existence of the TCEQ until 2023.

The TCAA specifically authorizes the TCEQ to establish the level of quality to be maintained in the state's air and to control the quality of the state's air by preparing and developing a general, comprehensive plan. The TCAA, Subchapters A - D, also authorize the TCEQ to collect information to enable the commission to develop an inventory of emissions; to conduct research and investigations; to enter property and examine records; to prescribe monitoring requirements; to institute enforcement proceedings; to enter into contracts and execute instruments; to formulate rules; to issue orders taking into consideration factors bearing upon health, welfare, social and economic factors, and practicability and reasonableness; to conduct hearings; to establish air quality control regions; to encourage cooperation with citizens' groups and other agencies and political subdivisions of the state as well as with industries and the federal government; and to establish and operate a system of permits for construction or modification of facilities.

Local government authority is found in Subchapter E of the TCAA. Local governments have the same power as the TCEQ to enter property and make inspections. They also may make recommendations to the commission concerning any action of the TCEQ that affects their territorial jurisdiction, may bring enforcement actions, and may execute cooperative agreements with the TCEQ or other local governments. In addition, a city or town may enact and enforce ordinances for the control and abatement of air pollution not inconsistent with the provisions of the TCAA and the rules or orders of the commission.

Subchapters G and H of the TCAA authorize the TCEQ to establish vehicle inspection and maintenance programs in certain areas of the state, consistent with the requirements of the Federal Clean Air Act; coordinate with federal, state, and local transportation planning agencies to develop and implement transportation programs and measures necessary to attain and maintain the NAAQS; establish gasoline volatility and low emission diesel standards; and fund and authorize participating counties to implement vehicle repair assistance, retrofit, and accelerated vehicle retirement programs.

B. Applicable Law

The following statutes and rules provide necessary authority to adopt and implement the state implementation plan (SIP). The rules listed below have previously been submitted as part of the SIP.

Statutes

All sections of each subchapter are included, unless otherwise noted.

TEXAS HEALTH & SAFETY CODE, Chapter 382

September 1, 2011

TEXAS WATER CODE

September 1, 2011

Chapter 5: Texas Natural Resource Conservation Commission

Subchapter A: General Provisions

Subchapter B: Organization of the Texas Natural Resource Conservation Commission

Subchapter C: Texas Natural Resource Conservation Commission

Subchapter D: General Powers and Duties of the Commission

Subchapter E: Administrative Provisions for Commission

Subchapter F: Executive Director (except §§5.225, 5.226, 5.227, 5.2275, 5.231, 5.232, and 5.236)

Subchapter H: Delegation of Hearings

Subchapter I: Judicial Review

Subchapter J: Consolidated Permit Processing

Subchapter L: Emergency and Temporary Orders (§§5.514, 5.5145, and 5.515 only)

Subchapter M: Environmental Permitting Procedures (§5.558 only)

Chapter 7: Enforcement

Subchapter A: General Provisions (§§7.001, 7.002, 7.0025, 7.004, and 7.005 only)

Subchapter B: Corrective Action and Injunctive Relief (§7.032 only)

Subchapter C: Administrative Penalties

Subchapter D: Civil Penalties (except §7.109)

Subchapter E: Criminal Offenses and Penalties: §§7.177, 7.179-7.183

Rules

All of the following rules are found in 30 Texas Administrative Code, as of the following latest effective dates:

Chapter 7: Memoranda of Understanding, §§7.110 and 7.119

December 13, 1996 and May 2, 2002

Chapter 19: Electronic Reporting

March 15, 2007

Chapter 35: Subchapters A-C, K: Emergency and Temporary Orders and Permits; Temporary Suspension or Amendment of Permit Conditions

July 20, 2006

Chapter 39: Public Notice, §§39.402(a)(1) - (6), (8), and (10) - (12), 39.405(f)(3) and (g), (h)(1)(A) - (4), (6), (8) - (11), (i) and (j), 39.407, 39.409, 39.411(a), (e)(1) - (4)(A)(i) and (iii), (4)(B), (5)(A) and (B), and (6) - (10), (11)(A)(i) and (iii) and (iv), (11)(B) - (F), (13) and (15), and (f)(1) - (8), (g) and (h), 39.418(a), (b)(2)(A), (b)(3), and (c), 39.419(e), 39.420 (c)(1)(A) - (D)(i)(I) and (II), (D)(ii), (c)(2), (d) - (e), and (h), and 39.601 - 39.605	June 24, 2010
Chapter 55: Requests for Reconsideration and Contested Case Hearings; Public Comment, §§55.150, 55.152(a)(1), (2), (5), and (6) and (b), 55.154(a), (b), (c)(1) - (3), and (5), and (d) - (g), and 55.156(a), (b), (c)(1), (e), and (g)	June 24, 2010
Chapter 101: General Air Quality Rules	October 27, 2011
Chapter 106: Permits by Rule, Subchapter A	May 15, 2011
Chapter 111: Control of Air Pollution from Visible Emissions and Particulate Matter	February 16, 2012
Chapter 112: Control of Air Pollution from Sulfur Compounds	July 16, 1997
Chapter 113: Standards of Performance for Hazardous Air Pollutants and for Designated Facilities and Pollutants	May 14, 2009
Chapter 114: Control of Air Pollution from Motor Vehicles	August 11, 2011
Chapter 115: Control of Air Pollution from Volatile Organic Compounds	December 29, 2011
Chapter 116: Permits for New Construction or Modification	March 1, 2012
Chapter 117: Control of Air Pollution from Nitrogen Compounds	April 19, 2012
Chapter 118: Control of Air Pollution Episodes	March 5, 2000
Chapter 122: §122.122: Potential to Emit	December 11, 2002
Chapter 122: §122.215: Minor Permit Revisions	June 3, 2001
Chapter 122: §122.216: Applications for Minor Permit Revisions	June 3, 2001
Chapter 122: §122.217: Procedures for Minor Permit Revisions	December 11, 2002
Chapter 122: §122.218: Minor Permit Revision Procedures for Permit Revisions Involving the Use of Economic Incentives, Marketable Permits, and Emissions Trading	June 3, 2001

SECTION V-D-1: INFRASTRUCTURE DEMONSTRATION FOR THE 2008 OZONE NATIONAL AMBIENT AIR QUALITY STANDARDS

A. Background

Section 110(a)(1) of the Federal Clean Air Act (FCAA) requires states to submit a state implementation plan (SIP) revision to provide for the implementation, maintenance, and enforcement of the National Ambient Air Quality Standards (NAAQS). States are required to submit the infrastructure portion of this SIP requirement to the United States Environmental Protection Agency (EPA) to demonstrate that basic program elements have been addressed within three years of the promulgation of any new or revised NAAQS. Section 110(a)(2) lists the elements that these SIP submissions must contain.

On March 12, 2008, the EPA strengthened the NAAQS for ground level ozone. The new primary eight-hour ozone standard, set at 0.075 parts per million (ppm) replaced the previous 1997 standard of 0.08 ppm. The EPA also strengthened the secondary eight-hour ozone standard to the level of 0.075 ppm making it identical to the revised primary standard. However, the EPA did not initially implement the 2008 eight-hour ozone standard due to a subsequent reconsideration of the NAAQS.

On February 2, 2011, the Texas Commission on Environmental Quality (TCEQ) sent a letter to the EPA Region 6 to request formal clarification on several issues regarding the 2008 ozone NAAQS and the EPA's reconsideration of the standards. Specifically, the TCEQ asked whether the EPA intended that Texas develop and submit infrastructure and transport SIP revisions under the 2008 ozone standards by the March 12, 2011, deadline. On April 21, 2011, the EPA responded to the TCEQ stating, "As we stated earlier, EPA has not implemented the 2008 ozone standards by the deadline specified in the *Federal Register* (75 FR 2936). EPA has proposed that the 2008 ozone standards are insufficient to protect public health and welfare (75 FR 2938). EPA intends to take final action on the reconsideration by the end of July 2011 and at that time we will propose requirements for implementation, including the requisite infrastructure and transport elements." Based on this EPA direction, the TCEQ did not submit an infrastructure SIP revision by the March 12, 2011, deadline.

On September 22, 2011, the EPA issued a memorandum to inform states that the 2008 ozone NAAQS would be implemented. Implementation of the 2008 ozone NAAQS requires that the infrastructure SIP be submitted, although the original deadline of March 12, 2011, has already passed. To date, the EPA has not published infrastructure or transport guidance for the 2008 ozone NAAQS.

This proposed SIP revision is intended to provide an update of the §110(a)(2) infrastructure requirements for the 2008 ozone NAAQS. This chapter outlines FCAA, §110(a)(2)(A) through (M) and includes various Texas provisions that support the conclusion that Texas meets the requirements of each section. The federally enforceable SIP for Texas is documented at 40 Code of Federal Regulations Part 52, Subpart SS.

The infrastructure demonstration is an expansion of the Legal Authority section of Texas' SIP that provides additional information about how the existing statutes and rules allow Texas to meet the §110(a)(2) infrastructure requirements of the FCAA. Therefore, this SIP revision contains an expanded infrastructure section under the SIP Legal Authority. This infrastructure section is intended to satisfy the §110(a)(1) requirement to provide for the implementation, maintenance, and enforcement of the NAAQS. This infrastructure section will be updated as part of the infrastructure SIP revisions that Texas is required to submit as new or revised NAAQS are promulgated, but it will not otherwise be included in other Texas SIP revisions.

Section A of the Legal Authority contains the basic listing of Texas' legal framework for adopting SIP revisions and will be the default Legal Authority for Texas SIP revisions that are not specifically submitted to meet the FCAA, §110(a)(1) infrastructure demonstration requirement.

The October 2, 2007, EPA *Guidance on SIP Elements Required Under Sections 110(a)(1) and (2) for the 1997 8-hour ozone and PM_{2.5} National Ambient Air Quality Standards*, and the September 25, 2009, *Guidance on SIP Elements Required Under Sections 110(a)(1) and (2) for the 2006 24-Hour Fine Particle (PM_{2.5}) National Ambient Air Quality Standards (NAAQS)* indicated that if a state determines that its existing SIP is adequate, the state can certify via a letter to the EPA that the existing SIP contains provisions that address the infrastructure requirements. The EPA's more recent 2011 *Guidance on Infrastructure State Implementation Plan (SIP) Elements Required Under Sections 110(a)(1) and 110(a)(2) for the 2008 Lead (Pb) National Ambient Air Quality Standards (NAAQS)* indicates that the state should provide reasonable public notice and opportunity for public hearing prior to submission to the EPA. The EPA has not yet proposed infrastructure or transport guidance for the 2008 ozone NAAQS, but in order to meet statutory deadlines for submittal of infrastructure SIPs, states do not have the option of waiting for EPA to provide additional guidance before proceeding with infrastructure and transport SIP development, review, and submittal. The TCEQ is proceeding with publication of this proposed SIP revision to ensure that there are adequate opportunities for public notice and comment as required by state and federal statutes.

The TCEQ acknowledges that proposed changes to federal regulations may have future impacts on how the TCEQ meets the requirements of FCAA, §110(a)(2); however, this proposed SIP revision reflects the methods and means by which Texas meets these requirements at the time of this SIP revision. Should future federal rule changes necessitate state rule changes, the TCEQ will act appropriately at that time.

B. Texas Statutory Authority

The TCEQ has the legal authority to implement, maintain, and enforce the NAAQS. Texas' legal authority has been submitted to the EPA as part of various SIP revisions that have been approved by the EPA.

The first air pollution control act, known as the Clean Air Act of Texas, was passed by the Texas Legislature in 1965. In 1967, the Clean Air Act of Texas was superseded by a more comprehensive statute, the Texas Clean Air Act (TCAA), found in Article 4477-5, Vernon's Texas Civil Statutes. The Legislature amended the TCAA in 1969, 1971, 1973, 1979, 1985, 1987, 1989, 1991, 1993, 1995, 1997, 1999, 2001, 2003, 2005, 2007, 2009, and 2011. In 1989, the TCAA was codified as Chapter 382 of the Texas Health and Safety Code.

Originally, the TCAA stated that the Texas Air Control Board (TACB) was the state air pollution control agency and was the principal authority in the state on matters relating to the quality of air resources. In 1991, the legislature abolished the TACB effective September 1, 1993, and its powers, duties, responsibilities, and functions were transferred to the Texas Natural Resource Conservation Commission (TNRCC). With the creation of the TNRCC, the authority over air quality is found in both the Texas Water Code and the TCAA. Specifically, the authority of the commission is found in Texas Water Code, Chapters 5 and 7. Chapter 5, Subchapters A - F, H - J, and L, include the general provisions, organization, and general powers and duties of the commission, and the responsibilities and authority of the executive director. Chapter 5 also authorizes the commission to implement action when emergency conditions arise and to conduct hearings. Chapter 7 gives the commission enforcement authority. In 2001, the 77th Texas Legislature continued the existence of the commission until September 1, 2013, and

changed the name of the TNRCC to the TCEQ. In 2009, the 81st Texas Legislature, during a special session, amended the Texas Water Code, §5.014, changing the expiration date of the TCEQ to September 1, 2011, unless continued in existence by the Texas Sunset Act. In 2011, the 82nd Texas Legislature continued the existence of the TCEQ until 2023.

The TCAA specifically authorizes the TCEQ to establish the level of quality to be maintained in the state's air and to control the quality of the state's air by preparing and developing a general, comprehensive plan. The TCAA, Subchapters A through D, also authorize the TCEQ to collect information to enable the commission to develop an inventory of emissions; conduct research and investigations; enter property and examine records; prescribe monitoring requirements; institute enforcement proceedings; enter into contracts and execute instruments; formulate rules; issue orders taking into consideration factors bearing upon health, welfare, social and economic factors, and practicability and reasonableness; conduct hearings; establish air quality control regions; encourage cooperation with citizens' groups and other agencies and political subdivisions of the state as well as with industries and the federal government; and establish and operate a system of permits for construction or modification of facilities.

Local government authority concerning air quality matters is found in Subchapter E of the TCAA. Local governments have the same power as the TCEQ to enter property and make inspections. Local governments may also make recommendations to the commission concerning any action of the TCEQ that affects their territorial jurisdiction, may bring enforcement actions, and may execute cooperative agreements with the TCEQ or other local governments. In addition, a city or town may enact and enforce ordinances for the control and abatement of air pollution not inconsistent with the provisions of the TCAA or the rules or orders of the commission.

Subchapters G and H of the TCAA authorize the TCEQ to establish vehicle inspection and maintenance programs in certain areas of the state, consistent with the requirements of the FCAA; coordinate with federal, state, and local transportation planning agencies to develop and implement transportation programs and measures necessary to attain and maintain the NAAQS; and fund and authorize participating counties to implement vehicle repair assistance, retrofit and accelerated vehicle retirement programs.

Statutory Authority

The following statutory authority allows for the establishment and operation of the TCEQ and the adoption and implementation of all §110(a)(2) requirements.

Texas Clean Air Act, Texas Health and Safety Code, Chapter 382, except Subchapter I.

Texas Water Code:

§5.013(a)(11) & (13)	GENERAL JURISDICTION OF COMMISSION
§5.051.	COMMISSION
§5.052.	MEMBERS OF THE COMMISSION; APPOINTMENT
§5.053.	ELIGIBILITY FOR MEMBERSHIP
§5.054.	REMOVAL OF COMMISSION MEMBERS
§5.059.	CONFLICT OF INTEREST
§5.060.	LOBBYIST PROHIBITION
§5.101.	SCOPE OF SUBCHAPTER
§5.102.	GENERAL POWERS
§5.103.	RULES
§5.104.	MEMORANDA OF UNDERSTANDING

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§7.182.	RECKLESS EMISSION OF AIR CONTAMINANT AND ENDANGERMENT
§7.183.	INTENTIONAL OR KNOWING EMISSION OF AIR CONTAMINANT AND KNOWING ENDANGERMENT
§7.186.	SEPARATE OFFENSES
§7.187.	PENALTIES

C. Texas Regulatory Authority

The TCEQ has promulgated rules implementing statutory authority to meet the requirements of both the FCAA and the TCAA. These rules were submitted to the EPA in various SIP revisions and have been approved in the *Federal Register* (FR) or are pending EPA review. Rules that are relevant for each FCAA, §110(a)(2) requirement are noted below.

FCAA, §110(a)(2)(A)**Federal Requirement**

- (A) include enforceable emission limitations and other control measures, means, or techniques (including economic incentives such as fees, marketable permits, and auctions of emissions rights), as well as schedules and timetables for compliance, as may be necessary or appropriate to meet the applicable requirements of this Act;

Texas Requirement

The TCEQ has promulgated rules to implement and enforce the NAAQS and other air quality standards. These rules include programs for banking and trading of emissions, as well as permits and fees. Periodic revisions to the SIP establish timetables and schedules for improving the air quality in nonattainment areas.

The following chapters of Title 30 Texas Administrative Code (TAC) contain rules relevant for this federal requirement:

Chap. 7	Memoranda of Understanding
Chap. 101	General Air Quality Rules
Chap. 106	Permits by Rule, Subchapter A, General Requirements
Chap. 111	Control of Air Pollution from Visible Emissions and Particulate Matter
Chap. 112	Control of Air Pollution from Sulfur Compounds
Chap. 113	Standards of Performance for Hazardous Air Pollutants and for Designated Facilities and Pollutants
Chap. 114	Control of Air Pollution from Motor Vehicles
Chap. 115	Control of Air Pollution from Volatile Organic Compounds
Chap. 116	Control of Air Pollution by Permits for New Construction or Modification
Chap. 117	Control of Air Pollution from Nitrogen Compounds
Chap. 118	Control of Air Pollution Episodes

FCAA, §110(a)(2)(B)**Federal Requirement**

- (B) provide for establishment and operation of appropriate devices, methods, systems, and procedures necessary to (i) monitor, compile, and analyze data on ambient air quality, and (ii) make such data available to the Administrator;

Texas Requirement

The TCEQ maintains a network of air quality monitors to measure air quality data that is reported to the EPA on a regular basis. Texas submits annual monitoring plans to the EPA that describe how the state has complied with monitoring requirements and explains any proposed changes.

The following chapters of 30 TAC contain rules relevant for this federal requirement:

Chap. 101	General Air Quality Rules
Chap. 106	Permits by Rule, Subchapter A, General Requirements
Chap. 111	Control of Air Pollution from Visible Emissions and Particulate Matter
Chap. 112	Control of Air Pollution from Sulfur Compounds
Chap. 115	Control of Air Pollution from Volatile Organic Compounds
Chap. 116	Control of Air Pollution by Permits for New Construction or Modification
Chap. 117	Control of Air Pollution from Nitrogen Compounds

FCAA, §110(a)(2)(C)

Federal Requirement

- (C) include a program to provide for the enforcement of the measures described in subparagraph (A), and regulation of the modification and construction of any stationary source within the areas covered by the plan as necessary to assure that national ambient air quality standards are achieved, including a permit program as required in parts C and D;

Texas Requirement

The TCEQ has established rules governing the enforcement of control measures, including attainment plans and permitting programs that regulate construction and modification of stationary sources.¹

The EPA has published various proposed disapproval notices for Texas' air permitting programs, and these disapprovals have not yet been fully resolved. Texas has adopted new rules that address these notices and has committed to working closely with the EPA to ensure that these rulemaking efforts will result in rules that are approvable by the EPA. The EPA has also proposed limited approval/limited disapproval of the commission's rules regarding public participation for air quality New Source Review (NSR) permits. Texas has withdrawn from EPA consideration most of the rules that were the subject of the proposed limited approval/limited disapproval and has submitted new and revised adopted public participation rules to the EPA for the SIP. On October 28, 2010, the EPA signed a notice withdrawing its limited approval and limited disapproval of the SIP revisions relating to public participation, because those revisions are no longer before the EPA for review. Although the EPA has disapproved various elements of Texas' air permitting programs, those concerns are being addressed with newly adopted rules and a commitment to work closely with EPA staff to issue EPA-approvable rules. Texas has a robust, SIP-approved permitting program and therefore has met the infrastructure requirements of §110(a)(2).

The following chapters of 30 TAC contain rules relevant for this federal requirement:

Chap. 35	Emergency and Temporary Orders and Permits; Temporary Suspension or Amendment of Permit Conditions; Subchapters A, B, C, K
Chap. 39	Public Notice
Chap. 55	Requests for Reconsideration and Contested Case Hearings; Public Notice

¹ Texas has permitting rules for Prevention of Significant Deterioration (PSD), as required by the FCAA. The EPA has recently promulgated regulations for the permitting of greenhouse gases under the PSD program. Although Texas has not amended or proposed amendments to its permitting program to include greenhouse gases, Texas is meeting its obligations under the FCAA to provide for permitting of facilities that emit criteria pollutants. Greenhouse gases are not criteria pollutants, with a NAAQS that must be met, and therefore a lack of permitting requirements in Texas rules for greenhouse gas emissions does not constitute a lack in the required infrastructure elements of §110(a)(2).

Chap. 101	General Air Quality Rules
Chap. 106	Permits by Rule, Subchapter A, General Requirements
Chap. 112	Control of Air Pollution from Sulfur Compounds
Chap. 115	Control of Air Pollution from Volatile Organic Compounds
Chap. 116	Control of Air Pollution by Permits for New Construction or Modification
Chap. 117	Control of Air Pollution from Nitrogen Compounds

FCAA, §110(a)(2)(D)

Federal Requirement

- (D) contain adequate provisions (i) prohibiting, consistent with the provisions of this title, any source or other type of emissions activity from emitting any air pollutant in amounts which will (I) contribute significantly to nonattainment in, or interfere with maintenance by, any other State with respect to any such national primary or secondary ambient air quality standard, or (II) interfere with measures required to be included in the applicable implementation plan for any other State under part C to prevent significant deterioration of air quality or to protect visibility, (ii) insuring compliance with the applicable requirements of sections 126 and 115 (relating to interstate and international pollution abatement);

Texas Requirement

This SIP revision includes an interstate transport technical analysis in Section VI: *Control Strategy* to address the requirements of §110(a)(2)(D)(i)(I).

Texas has a SIP-approved PSD and nonattainment NSR permitting program that contains requirements for sources of air pollutants to obtain an approved permit before beginning construction of a facility and before modifying an existing facility (see requirements for §110(a)(2)(C) previously listed). Texas submitted a Regional Haze SIP revision to the EPA on March 19, 2009. Regional haze program requirements include progress reports due to the EPA in 2014 and every five years thereafter, to demonstrate progress toward the visibility goal. Another Regional Haze SIP is due in 2018 and every 10 years thereafter, through 2064.

The following chapters of 30 TAC contain rules relevant for this federal requirement:

Chap. 101	General Air Quality Rules
Chap. 122	Subchapter E, Division 2, Clean Air Interstate Rule

FCAA, §110(a)(2)(E)

Federal Requirement

- (E) provide (i) necessary assurances that the State (or, except where the Administrator deems inappropriate, the general purpose local government or governments, or a regional agency designated by the State or general purpose local governments for such purpose) will have adequate personnel, funding, and authority under State (and, as appropriate, local) law to carry out such implementation plan (and is not prohibited by any provision of Federal or State law from carrying out such implementation plan or portion thereof), (ii) requirements that the state comply with the requirements respecting State boards under section 128, and (iii) necessary assurances that, where the State has relied on a local or regional government, agency, or instrumentality for the implementation of any plan provision, the State has responsibility for ensuring adequate implementation of such plan provision;

Texas Requirement

The TCEQ has consistently included assurances in SIP revisions that the state has adequate personnel, funding, and authority under state law to carry out the SIP. The TCEQ has various Memoranda of Understanding and Memoranda of Agreement with other state and local agencies. Local governments have their own responsibilities and privileges regarding the protection of air quality as established by the Texas legislature.

The TCEQ relies on the complete statutory and regulatory authority as referenced throughout this document. This statutory authority ensures that Texas can meet the requirements of this section, including the requirements of §128 of the FCAA. The TCEQ also regularly submits a legal authority with SIP revisions submitted to the EPA.

FCAA, §110(a)(2)(F)

Federal Requirement

- (F) require, as may be prescribed by the Administrator: (i) the installation, maintenance, and replacement of equipment, and implementation of other necessary steps, by owners or operators of stationary sources to monitor emissions from such sources, (ii) periodic reports on the nature and amounts of emissions and emissions-related data from such sources, and (iii) correlation of such reports by the State agency with any emission limitations or standards established pursuant to this Act, which reports shall be available at reasonable times for public inspection;

Texas Requirement

The TCEQ requires monitoring for air pollutants as part of its NSR permit program. Certain emission sources are required to submit annual emission inventories and periodic reporting of emissions, which provides data that is used in air quality modeling to help Texas prepare SIP revisions. Emissions data are available at reasonable times for public inspection, with some information also available on the agency Web site.

The following chapters of 30 TAC contain rules relevant for this federal requirement:

Chap. 101	General Air Quality Rules
Chap. 106	Permits by Rule, Subchapter A, General Requirements
Chap. 111	Control of Air Pollution from Visible Emissions and Particulate Matter
Chap. 112	Control of Air Pollution from Sulfur Compounds
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Chap. 116	Control of Air Pollution by Permits for New Construction or Modification
Chap. 117	Control of Air Pollution from Nitrogen Compounds

FCAA, §110(a)(2)(G)

Federal Requirement

- (G) provide for authority comparable to that in section 303 and adequate contingency plans to implement such authority;

Texas Requirement

The TCEQ may issue emergency orders, or issue or suspend air permits as required by an air pollution emergency. In addition, the TCEQ also maintains air quality information in a form readily available to the public on the TCEQ's [Today's Texas Air Quality Forecast Web site](http://www.tceq.texas.gov/compliance/monitoring/air/monops/forecast_today.html) (http://www.tceq.texas.gov/compliance/monitoring/air/monops/forecast_today.html).

The following chapters of 30 TAC contain rules relevant for this federal requirement:

Chap. 35	Emergency and Temporary Orders and Permits; Temporary Suspension or Amendment of Permit Conditions; Subchapters A, B, C, K
Chap. 118	Control of Air Pollution Episodes

FCAA, §110(a)(2)(H)

Federal Requirement

- (H) provide for revision of such plan: (i) from time to time as may be necessary to take account of revisions of such national primary or secondary ambient air quality standard or the availability of improved or more expeditious methods of attaining such standard, and (ii) except as provided in paragraph (3)(C), whenever the Administrator finds on the basis of information available to the Administrator that the plan is substantially inadequate to attain the national ambient air quality standard which it implements or to otherwise comply with any additional requirements established under this Act;

Texas Requirement

The TCEQ regularly revises the Texas SIP in response to revisions in the NAAQS and the EPA rules. See §110(a)(2)(A) above.

FCAA, §110(a)(2)(I)

Federal Requirement

- (I) in the case of a plan or plan revision for an area designated as a nonattainment area, meet the applicable requirements of part D (relating to nonattainment areas);

Texas Requirement

SIP revisions that implement the control strategies necessary to bring a nonattainment area into attainment of the NAAQS are not required by the FCAA to be submitted within three years of the promulgation of a new or revised NAAQS. Therefore, §110(a)(1) does not require this element to be demonstrated as part of an infrastructure SIP submittal (73 FR 16205, at 16206).

FCAA, §110(a)(2)(J)

Federal Requirement

- (J) meet the applicable requirements of section 121 (relating to consultation), section 127 (relating to public notification), and part C (relating to prevention of significant deterioration and visibility protection);

Texas Requirement

The TCEQ has an established public participation process for all SIP revisions and permitting programs. The EPA has proposed limited approval/limited disapproval of the rules regarding public participation for air quality NSR permits.² Texas has withdrawn from EPA consideration most of the rules that were the subject of the proposed limited approval/limited disapproval, and has submitted new and revised public participation rules to the EPA as a new SIP revision to

² Approval and Promulgation of Implementation Plans; Texas; Revisions to Chapters 39, 55, and 116 Which Relate to Public Participation on Permits for New and Modified Sources, 73 FR 72001 (November 26, 2008).

address the EPA's published concerns regarding these requirements.³ On October 28, 2010, the EPA signed a notice withdrawing its limited approval/limited disapproval of the SIP revisions relating to public participation because those revisions are no longer before the EPA for review (75 FR 68291). The TCEQ consults with other state agencies, local agencies, and non-governmental organizations, as well as with the environmental agencies of other states regarding air quality concerns. All major sources in Texas are subject to Texas' SIP-approved PSD program. Texas submitted a SIP revision to address Regional Haze, including a long-term strategy to address visibility impairment for each Class I area that may be impacted by emissions from Texas facilities.

The following chapters of 30 TAC contain rules relevant for this federal requirement:

Chap. 7	Memoranda of Understanding
Chap. 35	Emergency and Temporary Orders and Permits; Temporary Suspension or Amendment of Permit Conditions; Subchapters H and K
Chap. 101	General Air Quality Rules
Chap. 116	Control of Air Pollution for New Construction or Modification

FCAA, §110(a)(2)(K)

Federal Requirement

- (K) provide for (i) the performance of such air quality modeling as the Administrator may prescribe for the purpose of predicting the effect on ambient air quality of any emissions of any air pollutant for which the Administrator has established a national ambient air quality standard, and (ii) the submission, upon request, of data related to such air quality modeling to the Administrator;

Texas Requirement

Air quality modeling is conducted during development of revisions to the Texas SIP, as appropriate for the state to demonstrate attainment with required NAAQS. Modeling is also a part of the NSR permitting program.

The following chapter of 30 TAC contains rules relevant for this federal requirement:

Chap. 116	Control of Air Pollution for New Construction or Modification
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FCAA, §110(a)(2)(L)

Federal Requirement

- (L) require the owner or operator of each major stationary source to pay to the permitting authority, as a condition of any permit required under this Act, a fee sufficient to cover (i) the reasonable costs of reviewing and acting upon any application for such a permit, and (ii) if the owner or operator receives a permit for such source, the reasonable costs of implementing and enforcing the terms and conditions of any such permit (not including any court costs or other costs associated with any enforcement action), until fee requirement is superseded with respect to

³ The TCEQ adopted this rulemaking on June 2, 2010, and the adopted rules were published in the *Texas Register* (TR) on June 18, 2010 (35 TR 5198). These rules became effective on June 24, 2010, were submitted to the EPA on July 2, 2010, but the EPA has not yet taken any action on these rules.

such sources by the Administrator's approval of a fee program under title V;

Texas Requirement

The TCEQ assesses fees for reviewing permit applications and for enforcing the terms and conditions of permits.

The following chapters of 30 TAC contain rules relevant for this federal requirement:

Chap. 12	Payment of Fees
Chap. 101	General Air Quality Rules
Chap. 106	Permits by Rule, Subchapter A, General Requirements
Chap. 116	Control of Air Pollution by Permits for New Construction or Modification

FCAA, §110(a)(2)(M)

Federal Requirement

- (M) provide for consultation and participation by local political subdivisions affected by the plan.

Texas Requirement

The TCEQ has several cooperative agreements and Memoranda of Understanding with various other state and local agencies and organizations. Consultation with a variety of different organizations is a regular part of the TCEQ's process of developing SIP revisions.

D. Conclusion

The foregoing demonstrates that Texas has the necessary regulatory and statutory authority to meet the infrastructure requirements of FCAA, §110(a)(1) and (2) for the 2008 ozone NAAQS.

SECTION VI: CONTROL STRATEGY

- A. Introduction (No change)
- B. Ozone (No change)
- C. Particulate Matter (No change)
- D. Carbon Monoxide (No change)
- E. Lead (No change)
- F. Oxides of Nitrogen (No change)
- G. Sulfur Dioxide (No change)
- H. Conformity with the National Ambient Air Quality Standards (No change)
- I. Site Specific (No change)
- J. Mobile Sources Strategies (No change)
- K. Clean Air Interstate Rule (No change)
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LIST OF ACRONYMS

AD	attainment demonstration
AQS	Air Quality System
ARR	Austin-Round Rock
BPA	Beaumont-Port Arthur
CAIR	Clean Air Interstate Rule
CSAPR	Cross-State Air Pollution Rule
CTG	control techniques guidelines
DERC	Discrete Emission Reduction Credit
DFW	Dallas-Fort Worth
EAC	Early Action Compact
EGU	electric generating unit
EPA	United States Environmental Protection Agency
FCAA	Federal Clean Air Act
FR	<i>Federal Register</i>
g/hp-hr	grams per horsepower-hour
HECT	Highly Reactive Volatile Organic Compounds Emissions Cap and Trade
HGB	Houston-Galveston-Brazoria
hp	horsepower
HRVOC	highly reactive volatile organic compounds
hv	sunlight
lb/MMBtu	pound per million British thermal units
lb/ton of clinker	pounds of NO _x per ton of cement clinker produced
MECT	Mass Emissions Cap and Trade
MVEB	motor vehicle emissions budget
NAAQS	National Ambient Air Quality Standards
NETX	Northeast Texas
NO	nitrogen oxide
NO ₂	nitrogen dioxide
NO _x	nitrogen oxides
NSR	New Source Review
O ₂	oxygen
O ₃	ozone
PM _{2.5}	fine particulate matter

ppm	parts per million
PSD	Prevention of Significant Deterioration
PUCT	Public Utility Commission of Texas
RACM	reasonably available control measures
RACT	reasonably available control technology
RFP	reasonable further progress
SIP	state implementation plan
SO ₂	sulfur dioxide
TAC	Texas Administrative Code
TACB	Texas Air Control Board
TCAA	Texas Clean Air Act
TCEQ	Texas Commission on Environmental Quality (commission)
TNRCC	Texas Natural Resource Conservation Commission
tpy	tons per year
TUC	Texas Utilities Code
VIC	Victoria
VOC	volatile organic compounds

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CHAPTER 1: GENERAL

1.1 BACKGROUND

“The History of the Texas State Implementation Plan (SIP),” a comprehensive overview of the SIP revisions submitted to the United States Environmental Protection Agency (EPA) by the State of Texas, is available on the [Introduction to the SIP Web page](http://www.tceq.texas.gov/airquality/sip/sipintro.html#History) (<http://www.tceq.texas.gov/airquality/sip/sipintro.html#History>) on the [Texas Commission on Environmental Quality's \(TCEQ\) Web site](http://www.tceq.texas.gov) (<http://www.tceq.texas.gov>).

1.2 INTRODUCTION

This proposed SIP revision for the transport of ozone under the 2008 Ozone National Ambient Air Quality Standards (NAAQS) describes how the Texas Commission on Environmental Quality (TCEQ) will meet the requirements of §110(a)(2)(D)(i)(I) of the Federal Clean Air Act (FCAA). States are required to submit a SIP revision within three years of promulgation of new or revised NAAQS that contains adequate provisions that prohibit any source or other type of emissions activity within the state from emitting any NAAQS pollutants in amounts that will:

- contribute significantly to nonattainment of the NAAQS for areas in other states; or
- interfere with maintenance of the NAAQS by any other state.

On March 12, 2008, the EPA strengthened the NAAQS for ground level ozone. The new primary eight-hour ozone standard, set at 0.075 parts per million (ppm) replaced the previous 1997 standard of 0.08 ppm. The EPA also decreased the secondary eight-hour ozone standard to the level of 0.075 ppm making it identical to the revised primary standard. However, the EPA did not initially implement the 2008 eight-hour ozone standard due to a subsequent reconsideration of the NAAQS. To date, the EPA has not published infrastructure or transport guidance for the 2008 ozone NAAQS.

Based on the control strategies already in place to reduce ozone precursor emissions in ozone nonattainment areas and an analysis of ozone trends in Texas, this SIP revision demonstrates that Texas meets the transport requirements of FCAA §110(a)(2)(D)(i)(I).

1.3 HEALTH EFFECTS

In 2008, the EPA revised the primary ozone standard to 0.075 ppm. To support the 2008 eight-hour primary ozone standard, the EPA provided information indicating that health effects can occur at levels lower than the previous standard. Exposure to relatively high levels of ambient ozone can aggravate asthma in some people. Repeated exposures to high levels of ozone can make people more susceptible to respiratory infection and lung inflammation and can aggravate preexisting respiratory diseases, such as bronchitis and emphysema.

Children are at a relatively higher risk from exposure to ozone when compared to adults, since they breathe more air per pound of body weight than adults and because children's respiratory systems are still developing. Children also spend a considerable amount of time outdoors during summer and during the start of the school year (August through October) when high ozone levels are typically recorded. Adults most at risk to ozone exposure are people working or exercising outdoors and individuals with preexisting respiratory diseases.

1.4 PUBLIC HEARING AND COMMENT INFORMATION

The TCEQ will hold a public hearing for this proposed SIP revision at the following time and location:

Table 1-1: Public Hearing Information

City	Date	Time	Location
Austin, TX	September 25, 2012	10:00 a.m.	Texas Commission on Environmental Quality, 12100 Park 35 Circle, Building E, Room 201S

Written comments will be accepted via mail, fax, or through the [eComments](http://www5.tceq.texas.gov/rules/ecomments/) (<http://www5.tceq.texas.gov/rules/ecomments/>) system. All comments should reference the “Federal Clean Air Act, Sections 110(a)(1) and (2) Infrastructure and Transport State Implementation Plan Revision for the 2008 Ozone National Ambient Air Quality Standards” and Project Number 2012-004-SIP-NR. Comments may be submitted to Shelley Naik, MC 206, State Implementation Plan Team, Office of Air, Texas Commission on Environmental Quality, P.O. Box 13087, Austin, Texas 78711-3087 or faxed to (512) 239-5687. Electronic comments may be submitted through the eComments system. File size restrictions may apply to comments being submitted via the eComments system. Comments must be received by September 28, 2012.

An electronic version of this proposed SIP revision and appendices can be found at the TCEQ’s [SIP Hot Topics](http://www.tceq.texas.gov/airquality/sip/Hottop.html) Web page (<http://www.tceq.texas.gov/airquality/sip/Hottop.html>).

1.5 SOCIAL AND ECONOMIC CONSIDERATIONS

Because rulemaking is not a part of this SIP revision, there are no changes that would have an impact on society or the economy.

1.6 FISCAL AND MANPOWER RESOURCES

The TCEQ has determined that its fiscal and manpower resources are adequate and will not be adversely affected through the implementation of this plan.

1.7 COORDINATION WITH LOCAL AGENCIES

The TCEQ has determined that there will be no assignment to local agencies. However, pre-existing assignments to local agencies regarding various enforcement activities remain in effect and could be used if enforcement activities are delegated to the TCEQ from the EPA.

1.8 ORGANIZATIONS RESPONSIBLE FOR DEVELOPMENT, IMPLEMENTATION AND ENFORCEMENT

The TCEQ is the agency delegated authority by the Texas Legislature regarding the protection of air quality in the State of Texas. Other local government entities have limited authority regarding air quality matters in the State of Texas.

1.9 DATA AVAILABILITY

The TCEQ affirms that it will retain all data used in the preparation of this SIP revision. All supporting documents and data are publicly available via the [TCEQ SIP Web page](http://www.tceq.texas.gov/airquality/sip/) (<http://www.tceq.texas.gov/airquality/sip/>) or are available from the TCEQ upon request.

CHAPTER 2: REQUIRED CONTROL STRATEGY ELEMENTS

2.1 BACKGROUND

There are only two nonattainment areas for the 2008 eight-hour ozone National Ambient Air Quality Standards (NAAQS) in Texas: the Houston-Galveston-Brazoria (HGB) marginal nonattainment area and the Dallas-Fort Worth (DFW) moderate nonattainment area. The rest of the counties in Texas are designated unclassifiable/attainment for the 2008 eight-hour ozone NAAQS.

Texas has not yet put control measures in place to address the 2008 eight-hour ozone NAAQS, as attainment demonstration (AD) state implementation plan (SIP) revisions are not due until 2015. However, Texas already has numerous control measures in place to address ozone precursor emissions under previous ozone standards. These measures have resulted in significant decreases in eight-hour ozone design values from 1990 to 2010, with much of the decreases occurring from 2000 to 2010. With implementation of the 2008 ozone standard, decreases in design values are expected to continue.

Texas is not covered under the Clean Air Interstate Rule (CAIR) for the 1997 eight-hour ozone NAAQS, but is included for the 1997 fine particulate matter (PM_{2.5}) NAAQS. In addition to the annual nitrogen oxides (NO_x) reductions from the CAIR program, in 1999 the state implemented a strategy in the eastern part of Texas to reduce NO_x emissions from electric generating units (EGU). These EGU strategies, along with other NO_x and volatile organic compounds (VOC) reducing programs from 1997 eight-hour ozone SIP revisions, Early Action Compact (EAC) SIP revisions, 1997 eight-hour ozone maintenance plans, 1997 eight-hour ozone flex plans, one-hour ozone SIP revisions, a one-hour ozone flexible attainment region SIP revision, and one-hour ozone flexible agreements are described in this chapter. The combination of these NO_x and VOC reduction programs fulfills the state's obligation to address transport for the 2008 eight-hour ozone NAAQS.

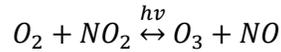
2.2 CONTROL STRATEGY OVERVIEW

Federal Clean Air Act (FCAA), §110(a)(2)(D)(i)(I) requires states to submit a SIP revision that contains adequate provisions to prohibit any source or other type of emissions activity within the state from emitting any air pollutants in amounts that will contribute significantly to nonattainment of the NAAQS for areas in other states or interfere with maintenance of the NAAQS in any other state. The following sections evaluate eight-hour ozone design value trends for nonattainment areas in Texas and in surrounding states and outline the control measures implemented in Texas to achieve emission reductions to demonstrate that emissions from Texas do not contribute significantly to nonattainment or interfere with maintenance of the 2008 ozone NAAQS in another state.

2.2.1 Significant Contribution to Nonattainment and Interference with Maintenance Elements

2.2.1.1 Technical Analysis

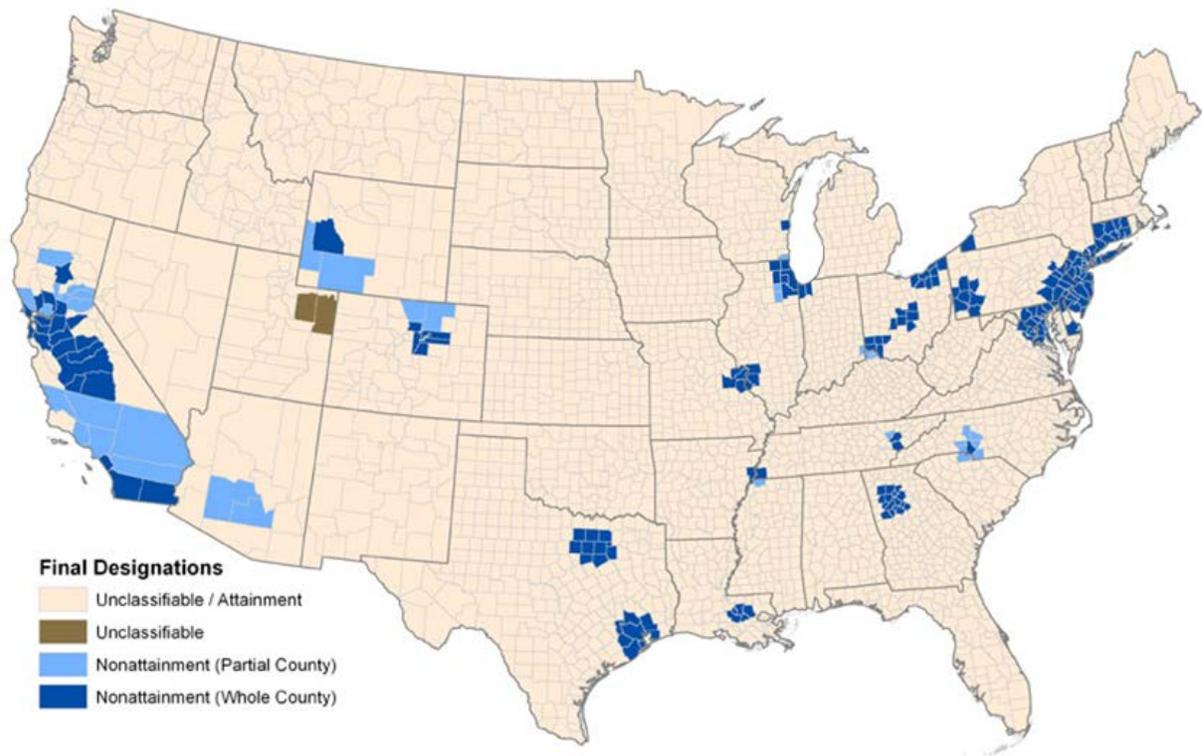
Ozone (O₃) is a secondary pollutant that is created through a photochemical reaction between oxygen (O₂), NO_x, and VOC. NO_x refers to the combination of nitrogen oxide (NO) and nitrogen dioxide (NO₂). The following reactions show how NO_x, VOC, and O₂ react in the presence of sunlight (hv) to form O₃:



The amount of ozone formed depends on several factors. Meteorological conditions, such as wind direction and speed, temperature, mixing height, solar radiation, and other parameters, affect the rates at which ozone formation occurs. The types and the concentration of precursors present can affect net reactivity of precursor compounds found in a plume of emissions.

Precursor compounds, NO_x and VOC, also exist under natural conditions. Ozone is created and destroyed on a natural cycle according to atmospheric conditions and chemical concentrations, even in the absence of additional anthropogenic precursor sources. This natural ozone formation is known as “natural background” ozone and is the starting point for measuring the contribution of ozone and precursors attributable to human activity. Within an urban area, not all ozone formation is necessarily caused by emissions produced locally because anthropogenic precursors, along with ozone formed by them, are often transported over long distances. Because the amount of ozone formed depends on so many other variables, it can be difficult to quantify the exact contribution from specific sources.

The EPA revised the eight-hour ozone NAAQS to 0.075 parts per million (ppm) in 2008. On April 30, 2012, the EPA finalized designations for the 2008 eight-hour ozone NAAQS. Figure 2-1: *Counties Designated Nonattainment for the 2008 Eight-Hour Ozone NAAQS (EPA, 2012)* shows a map of the counties the EPA designated nonattainment. The map shows that two areas in Texas were designated nonattainment. The DFW area, which includes Collin, Dallas, Denton, Ellis, Johnson, Kaufman, Parker, Rockwall, Tarrant, and Wise Counties, and the HGB area, which includes Brazoria, Chambers, Fort Bend, Galveston, Harris, Liberty, Montgomery, and Waller Counties.



Notes:
EPA does not intend to designate as nonattainment any areas outside the Continental US.

Figure 2-1: Counties Designated Nonattainment for the 2008 Eight-Hour Ozone NAAQS (EPA, 2012)

Figure 2-2: *Eight-Hour Ozone Design Value Trends in Texas and Closest Nonattainment Areas* shows the eight-hour ozone design value trends from the nonattainment areas in Texas and nonattainment areas in surrounding states. The surrounding nonattainment areas evaluated below are those that are geographically closest to Texas. The design values in Texas were over 6 ppb higher in 2010 than the design values in other states; however, the overall design value trend was decreasing in all areas. Although all areas had a decrease in the eight-hour ozone design value, the majority of areas experienced most of those decreases after 2000. Table 2-1: *Percent Change in Eight-Hour Ozone Design Values* shows the percent change in the eight-hour ozone design values from Texas and the closest nonattainment areas in other states (Arizona, Arkansas, Colorado, Illinois, Indiana, Louisiana, Mississippi, Missouri, Tennessee, and Wisconsin). The minus sign indicates a percent decrease. The table shows that the percent change from 2000 through 2010, which ranged from a 9% decrease to a 25% decrease, was much larger than the percent change from 1990 through 2000, which ranged from a 6% increase to an 18% decrease. The HGB area had the second largest decrease in eight-hour ozone design values from 1990 through 2010, 29 %, the majority of that occurring after 2000.

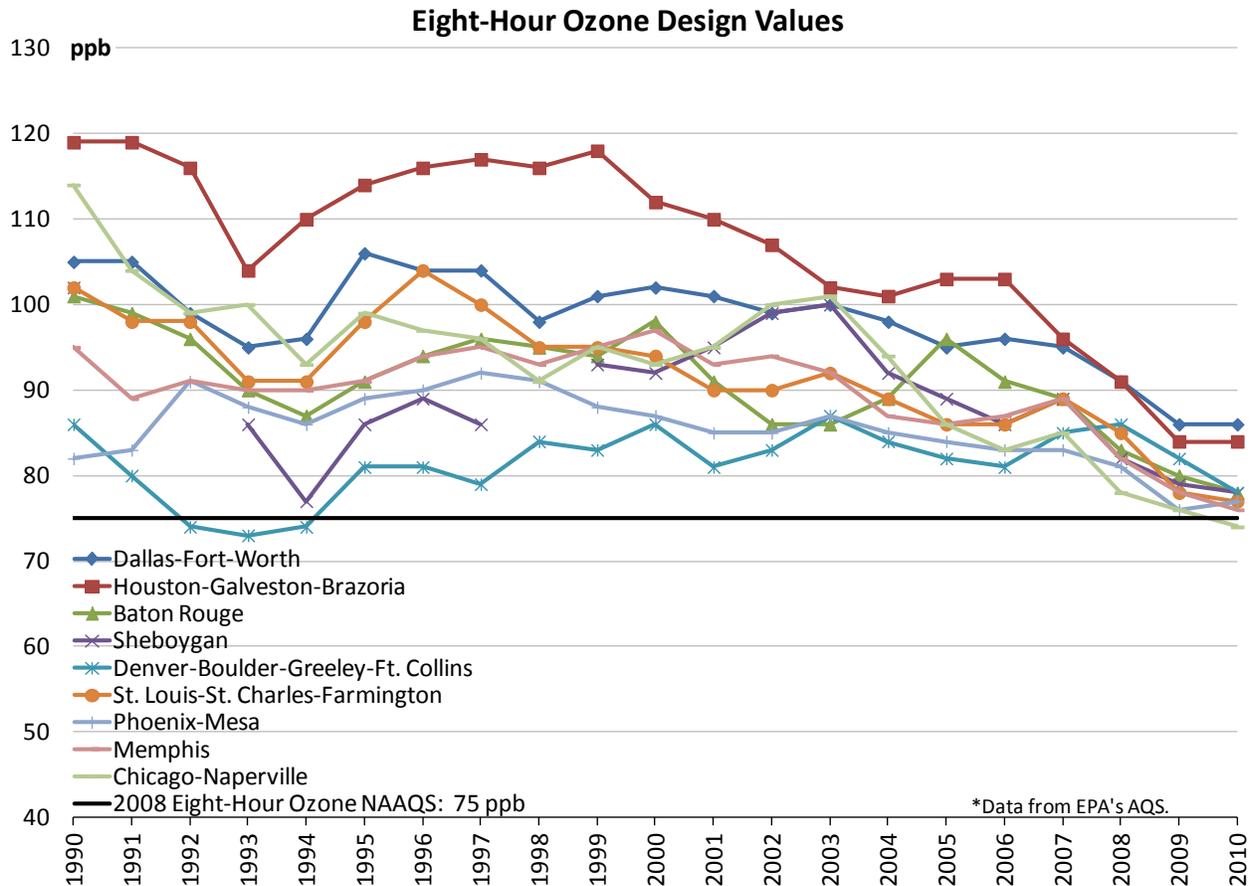


Figure 2-2: Eight-Hour Ozone Design Value Trends in Texas and Closest Nonattainment Areas

Table 2-1: Percent Change in Eight-Hour Ozone Design Values

Nonattainment Area	Percent Change 1990-2010	Percent Change 1990-2000	Percent Change 2000-2010
Chicago-Naperville	-35	-18	-20
Houston-Galveston-Brazoria	-29	-6	-25
St. Louis-St. Charles-Farmington	-25	-8	-18
Sheboygan	-24	-10	-15
Baton Rouge	-23	-3	-20
Memphis	-20	2	-22
Dallas-Fort-Worth	-18	-3	-16
Denver-Boulder-Greeley-Ft. Collins	-9	0	-9
Phoenix-Mesa	-6	6	-11

EPA Region 6, the region where Texas is located, has two other nonattainment areas besides those in Texas: the Baton Rouge area in Louisiana and the Memphis area in Arkansas, Mississippi, and Tennessee. Table 2-2: *Areas in EPA Region 6 Designated Nonattainment for the 2008 Eight-Hour Ozone NAAQS* lists the counties in each area that were designated

nonattainment and shows the approximate distance from each nonattainment area to the Texas nonattainment areas. Although the Memphis nonattainment area spans three states (Arkansas, Mississippi, and Tennessee), only one of those states, Arkansas, is located within Region 6. These areas can be seen more clearly on the map displayed in Figure 2-3: *2010 Eight-Hour Ozone Design Values at Monitors Located in Texas and Surrounding States*.

Table 2-2: Areas in EPA Region 6 Designated Nonattainment for the 2008 Eight-Hour Ozone NAAQS

Area	State	Counties Designated Nonattainment by the EPA	Approximate Distance from HGB (miles)	Approximate Distance from DFW (miles)
Baton Rouge	Louisiana	Ascension East Baton Rouge Iberville Livingston West Baton Rouge	260	370
Memphis	Arkansas Mississippi Tennessee	Crittenden DeSoto (partial county) Shelby	485	420

Figure 2-3 also shows the 2010 eight-hour ozone design values from monitors in Texas and the surrounding Region 6 states. Design values are from the EPA’s Air Quality System (AQS). The pink and red dots represent monitors with a design value that is above the 2008 eight-hour ozone NAAQS, and the yellow and blue dots represent monitors with a design value below the 2008 eight-hour ozone NAAQS. Attainment status is based on 2010 design values.

Nonattainment areas are outlined on the map in light and dark brown. The map shows that there are several monitors located between Texas and the two closest nonattainment areas, Memphis and Baton Rouge. The monitors located between Texas and Baton Rouge show attainment of the 2008 eight-hour ozone NAAQS. This result suggests that local emissions contribute to these areas’ nonattainment status. In addition, there are sources of ozone precursors located between Texas and the other nonattainment areas. The amount of ozone in other nonattainment areas from precursor sources outside of Texas and the amount of ozone coming from Texas into other nonattainment areas was not calculated. Because there are additional precursor sources located between Texas and other areas, it is difficult to determine how much ozone in other areas would be due to transport and how much ozone would be due to those sources of ozone precursors.

Ozone season wind patterns from the DFW and the HGB areas were extensively investigated in the 2010 DFW Ozone Conceptual Model (TCEQ, 2011) and in the 2009 HGB Ozone Conceptual Model (TCEQ, 2010). Those analyses showed that in the DFW area ozone season winds are typically out of the south to the east. In the HGB area, winds in the early part of the ozone season, May through July, are typically from the south. Then, in the later part of the ozone season, August and September, winds switch to a more east to northeast direction. In both areas, very few winds are observed from the west and northwest, the directions which would be anticipated to transport ozone to Memphis and Baton Rouge.

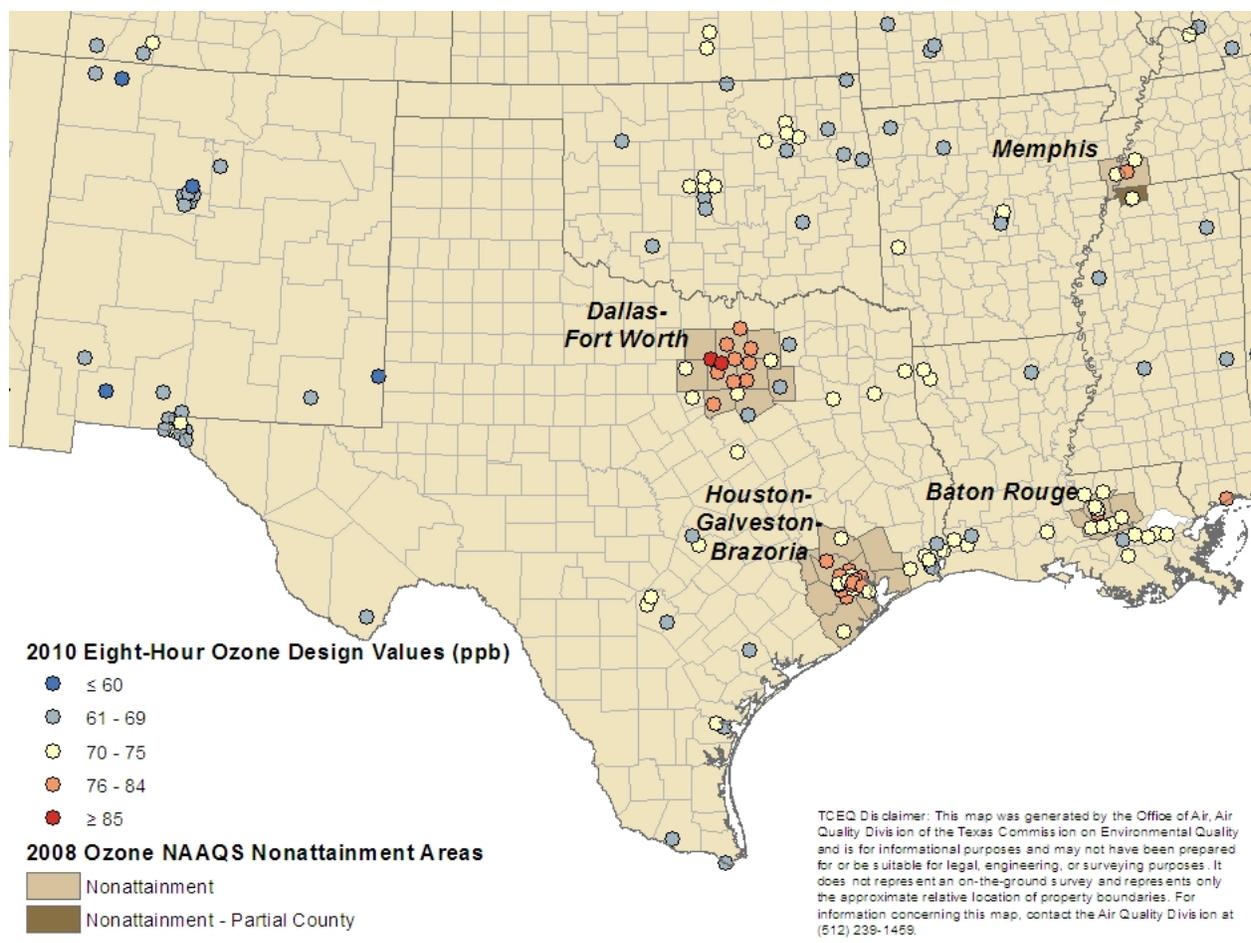


Figure 2-3: 2010 Eight-Hour Ozone Design Values at Monitors Located in Texas and Surrounding States

2.2.1.2 Monitoring Sites

In 2010, there were 167 ozone monitors located within EPA Region 6. The location of monitors with valid 2010 eight-hour ozone design values are displayed in the map in Figure 2-3. A complete list of monitors, including those without valid design values, is shown in Table 2-3: *Monitor Sites and Eight-Hour Ozone Design Values in EPA Region 6*. The data from these monitors were reported to the EPA’s AQS. Texas has the most monitors, 78, in Region 6. Oklahoma has 29 monitors, New Mexico and Louisiana have 26 monitors each, and Arkansas has 8 monitors. Note that the monitor numbers include tribal monitors. Although there are several monitors located near the Texas border in Louisiana and New Mexico, there are no monitors near the Texas border in Oklahoma and Arkansas.

Table 2-3: Monitor Sites and Eight-Hour Ozone Design Values in EPA Region 6

State	County Name	Airs Number and POC Number	Site Name (If Applicable)	2010 Eight-Hour Ozone Design Value	Nonattainment Area (If Applicable)
Arkansas	Crittenden	050350005-1	Marion	74	Memphis
Arkansas	Newton	051010002-1	Deer	66	
Arkansas	Polk	051130003-1	Eagle Mountain	70	

State	County Name	Airs Number and POC Number	Site Name (If Applicable)	2010 Eight-Hour Ozone Design Value	Nonattainment Area (If Applicable)
Arkansas	Pulaski	051190007-1	Parr	70	
Arkansas	Pulaski	051191002-1	Nlr Airport	70	
Arkansas	Pulaski	051191008-1	Doyle Springs Road	67	
Arkansas	Van Buren	051410001-1			
Arkansas	Washington	051430005-1	Springdale	64	
Louisiana	Ascension	220050004-1		75	Baton Rouge
Louisiana	Bossier	220150008-2		74	
Louisiana	Caddo	220170001-2		72	
Louisiana	Calcasieu	220190002-1		74	
Louisiana	Calcasieu	220190008-1		63	
Louisiana	Calcasieu	220190009-1		74	
Louisiana	East Baton Rouge	220330003-1		78	Baton Rouge
Louisiana	East Baton Rouge	220330009-1	Capitol	73	Baton Rouge
			Locate At Pride /		
Louisiana	East Baton Rouge	220330013-1	Zachary	72	Baton Rouge
Louisiana	East Baton Rouge	220331001-2		72	Baton Rouge
Louisiana	Iberville	220470007-1		71	
			Off LA Hwy 75 Near		
			Water Treatment		
Louisiana	Iberville	220470009-1	Facility	73	Baton Rouge
			Replaced Site Id		
Louisiana	Iberville	220470012-1	220470002	73	Baton Rouge
Louisiana	Jefferson	220511001-2	Kenner	75	
			Replace Site Id		
Louisiana	Lafayette	220550007-1	#220550001	72	
			Nicholls State University		
Louisiana	Lafourche	220570004-1	Farm	71	
Louisiana	Livingston	220630002-1		75	Baton Rouge
Louisiana	Orleans	220710012-2	City Park	71	
Louisiana	Ouachita	220730004-1	Monroe Airport	64	
Louisiana	Pointe Coupee	220770001-1		75	
Louisiana	St. Bernard	220870009-1	Chalmette High School	69	
Louisiana	St. Charles	220890003-1		70	
Louisiana	St. James	220930002-1		68	
	St. John the				
Louisiana	Baptist	220950002-1		73	
Louisiana	St. Tammany	221030002-1			
	West Baton				
Louisiana	Rouge	221210001-1		71	Baton Rouge
New Mexico	Bernalillo	350010023-1	Del Norte High School	64	
New Mexico	Bernalillo	350010024-1	South East Heights	66	

State	County Name	Airs Number and POC Number	Site Name (If Applicable)	2010 Eight-Hour Ozone Design Value	Nonattainment Area (If Applicable)
New Mexico	Bernalillo	350010027-1	Westside Taylor Ranch	67	
New Mexico	Bernalillo	350010029-1	South Valley Mountain View	66	
New Mexico	Bernalillo	350010032-1	Westside		
New Mexico	Bernalillo	350011012-1	Far North East Heights	68	
New Mexico	Bernalillo	350011013-1	North Valley	67	
New Mexico	Dona Ana	350130008-2		64	
New Mexico	Dona Ana	350130017-1		64	
New Mexico	Dona Ana	350130020-1	6Zk 3 Mi North Of El Paso, TX On East Side Of Franklin Mountains	66	
New Mexico	Dona Ana	350130021-1	6Zm 2Mi From Mt Cristo Rey Where NM, TX, And Mexico Join Together	70	
New Mexico	Dona Ana	350130022-1	6Zn US-Mexico Border Crossing. Both Sides Uninhabited As Of 1996.	67	
New Mexico	Dona Ana	350130023-1	6Zq In SE Corner Of NM Highway Dept. Yards In Las Cruces	63	
New Mexico	Eddy	350151005-1	5Zr On Blm Land Bordering Residential Area Outside Carlsbad City L	67	
New Mexico	Eddy	350153001-1	7T Alongside Softball Field And Near Chino		
New Mexico	Grant	350171003-1	Copper Smelter	63	
New Mexico	Lea	350250008-1	Hobbs-Jefferson	59	
New Mexico	Luna	350290003-1		57	
New Mexico	Sandoval	350431001-1		60	

State	County Name	Airs Number and POC Number	Site Name (If Applicable)	2010 Eight-Hour Ozone Design Value	Nonattainment Area (If Applicable)
New Mexico	Sandoval	350439004-1	Pueblo Of Jemez Tribal Trust Lands, Department Of Resource Protection		
New Mexico	San Juan	350450009-1	SE Corner Of NM Highway Dept Yard	60	
New Mexico	San Juan	350450018-1			
New Mexico	San Juan	350451005-1		63	
New Mexico	San Juan	350451233-1			
New Mexico	Santa Fe	350490021-1		63	
New Mexico	Valencia	350610008-1			
Oklahoma	Adair	400019009-1	Stilwell	67	
Oklahoma	Caddo	400159008-1	Anadarko Pm2.5		
Oklahoma	Canadian	400170101-1	OKC West-(Yukon)	71	
Oklahoma	Cherokee	400219002-1	Tahlequah Shelter	68	
Oklahoma	Cleveland	400270049-1	Moore Water Tower	69	
Oklahoma	Comanche	400310649-1	Lawton South		
Oklahoma	Comanche	400310651-1	Lawton North	69	
Oklahoma	Creek	400370144-1	Mannford	70	
Oklahoma	Dewey	400430860-1	Seiling Municipal Airport Located Behind Lake Waurika Corp. Of Eng. Office	66	
Oklahoma	Jefferson	400670671-1			
Oklahoma	Kay	400719003-1	Ponca Tribe		
Oklahoma	Kay	400719010-1	Newkirk Improve Sac and Fox Nation,	66	
Oklahoma	Lincoln	400819005-1	Stroud Weather Station - Burneyville Mesonet Site	60	
Oklahoma	Love	400850300-1			
Oklahoma	McClain	400871073-1	Goldsby	68	
Oklahoma	McCurtain	400892001-1	Smithville Site		
Oklahoma	Mayes	400979014-1	Cherokee Heights	67	
Oklahoma	Oklahoma	401090033-1	OKC Central-Osdh	72	
Oklahoma	Oklahoma	401090096-1	Choctaw	72	
Oklahoma	Oklahoma	401091037-1	OKC North	74	
Oklahoma	Osage	401139020-1			
Oklahoma	Ottawa	401159004-1	Quapaw Shelter	65	

State	County Name	Airs Number and POC Number	Site Name (If Applicable)	2010 Eight-Hour Ozone Design Value	Nonattainment Area (If Applicable)
Oklahoma	Pittsburg	401210415-1	Mcalester Municipal Airport	67	
Oklahoma	Sequoyah	401359015-1	Marble City Shelter		
Oklahoma	Sequoyah	401359021-1			
Oklahoma	Tulsa	401430137-1	Tulsa North (Skiatook)	75	
Oklahoma	Tulsa	401430174-1	Tulsa South	67	
Oklahoma	Tulsa	401430178-1	Tulsa East	70	
Oklahoma	Tulsa	401431127-1	North Tulsa - Fire Station#24	70	
Texas	Bell	480271047-1	Killeen Skylark Field		
Texas	Bexar	480290032-2	San Antonio Northwest	75	
Texas	Bexar	480290052-1	Camp Bullis	75	
Texas	Bexar	480290055-1	CPS Pecan Valley		
Texas	Bexar	480290059-1	Calaveras Lake	67	
Texas	Bexar	480290622-1	Heritage Middle School		
Texas	Brazoria	480391004-1	Manvel Croix Park	84	HGB
Texas	Brazoria	480391016-1	Lake Jackson	74	HGB
Texas	Brewster	480430101-1	Bravo Big Bend	64	
Texas	Cameron	480610006-1	Brownsville	65	
Texas	Collin	480850005-1	Frisco	77	DFW
Texas	Dallas	481130069-3	Dallas Hinton		DFW
Texas	Dallas	481130075-1	Dallas North #2	78	DFW
Texas	Dallas	481130087-1	Dallas Redbird Airport Execut	78	DFW
Texas	Denton	481210034-1	Denton Airport South	80	DFW
Texas	Denton	481211032-1	Pilot Point	78	DFW
Texas	Ellis	481390016-1	Midlothian Ofw	72	DFW
Texas	Ellis	481391044-1	Italy	68	DFW
Texas	El Paso	481410029-1	Ivanhoe	69	
Texas	El Paso	481410037-2	El Paso UTEP	71	
Texas	El Paso	481410044-1	El Paso Chamizal	70	
Texas	El Paso	481410055-1	Ascarate Park Se	69	
Texas	El Paso	481410057-1	Socorro	68	
Texas	El Paso	481410058-1	Skyline Park	71	
Texas	Galveston	481671034-1	Galveston 99Th Street		HGB
Texas	Gregg	481830001-2	Longview	74	
Texas	Harris	482010024-2	Houston Aldine	83	HGB
Texas	Harris	482010026-3	Channelview	78	HGB
Texas	Harris	482010029-2	Northwest Harris County	81	HGB
Texas	Harris	482010046-1	Houston North Wayside	71	HGB
Texas	Harris	482010047-2	Lang	76	HGB
Texas	Harris	482010051-2	Houston Croquet	77	HGB
Texas	Harris	482010055-1	Houston Bayland Park	82	HGB

State	County Name	Airs Number and POC Number	Site Name (If Applicable)	2010 Eight-Hour Ozone Design Value	Nonattainment Area (If Applicable)
Texas	Harris	482010062-1	Houston Monroe	72	HGB
Texas	Harris	482010066-1	Houston Westhollow	75	HGB
Texas	Harris	482010070-1	Houston Regional Office	73	HGB
Texas	Harris	482010075-1	Houston Texas Avenue	74	HGB
Texas	Harris	482010416-1	Park Place	77	HGB
Texas	Harris	482011015-1	Lynchburg Ferry		HGB
Texas	Harris	482011034-2	Houston East	76	HGB
Texas	Harris	482011035-3	Clinton	76	HGB
Texas	Harris	482011039-1	Houston Deer Park #2 Seabrook Friendship	81	HGB
Texas	Harris	482011050-1	Park	75	HGB
Texas	Harrison	482030002-1	Karnack	70	
Texas	Hays	482090614-1	Dripping Springs School		
Texas	Hidalgo	482150042-1	Edinburg		
Texas	Hidalgo	482150043-1	Mission	61	
Texas	Hidalgo	482151048-1	Mercedes		
Texas	Hood	482210001-1	Granbury	75	
Texas	Hunt	482311006-1	Greenville	64	
Texas	Jefferson	482450009-2	Beaumont Downtown	72	
Texas	Jefferson	482450011-1	Port Arthur West	74	
Texas	Jefferson	482450022-1	Hamshire	70	
Texas	Jefferson	482450101-1	South East Texas Regional Planning Commission (SETRPC) 40 Sabine Pass SETRPC 43 Jefferson Co		
Texas	Jefferson	482450102-1	Airport	73	
Texas	Jefferson	482450628-1	SETRPC Port Arthur	68	
Texas	Jefferson	482451035-1	Nederland High School	70	
Texas	Johnson	482510003-1	Cleburne Airport	80	DFW
Texas	Kaufman	482570005-1	Kaufman	67	DFW
Texas	McLennan	483091037-1	Waco Mazanec	70	
Texas	Montgomery	483390078-1	Conroe Relocated	71	HGB
Texas	Navarro	483491051-1	Corsicana Airport		
Texas	Nueces	483550025-2	Corpus Christi West	69	
Texas	Nueces	483550026-1	Corpus Christi Tuloso	71	
Texas	Orange	483611001-2	West Orange	71	
Texas	Orange	483611100-1	SETRPC 42 Mauriceville	68	
Texas	Parker	483670081-1	Parker County	75	DFW
Texas	Rockwall	483970001-1	Rockwall Heath	74	DFW
Texas	Smith	484230007-1	Tyler Airport Relocated	73	
Texas	Tarrant	484390075-1	Eagle Mountain Lake	85	DFW
Texas	Tarrant	484391002-2	Fort Worth Northwest	79	DFW
Texas	Tarrant	484392003-2	Keller	86	DFW

State	County Name	Airs Number and POC Number	Site Name (If Applicable)	2010 Eight-Hour Ozone Design Value	Nonattainment Area (If Applicable)
Texas	Tarrant	484393009-1	Grapevine Fairway Arlington Municipal	82	DFW
Texas	Tarrant	484393011-1	Airport	79	DFW
Texas	Travis	484530014-2	Austin Northwest	74	

2.2.1.3 References

EPA. "Final Nonattainment Areas for the 2008 Ozone Standards." Last modified May 1, 2012. <http://www.epa.gov/airquality/ozonepollution/designations/2008standards/final/finalmap.htm>.

TCEQ. HGB Attainment Demonstration SIP Revision for the 1997 Eight-Hour Ozone Standard. Appendix C: Photochemical Modeling for the HGB Attainment Demonstration SIP. March, 10, 2010. http://www.tceq.texas.gov/airquality/sip/HGB_eight_hour.html.

TCEQ. Dallas-Fort Worth Attainment Demonstration State Implementation Plan Revision for the 1997 Eight-Hour Ozone Standard. Appendix D: Conceptual Modeling for the DFW Attainment Demonstration SIP Revisions for the 1997 Eight-Hour Ozone Standard. December 7, 2011. http://www.tceq.texas.gov/airquality/sip/dfw_revisions.html.

2.2.2 Emissions Reductions from EGUs

Texas is not covered under the CAIR for the 1997 eight-hour ozone NAAQS, but is included for the 1997 PM_{2.5} NAAQS. In addition to the annual NO_x reductions from the CAIR program, in 1999, the state implemented a strategy in the eastern part of Texas to reduce NO_x emissions from EGUs. The control strategies specific to EGUs include:

- utility electric generation in ozone nonattainment areas;
- utility electric generation in east and central Texas; and
- Texas-specific legislation from the 1999 76th session in Senate Bill 7 that requires NO_x reductions through a regional cap and trade program.

These strategies have resulted in significant NO_x emissions from EGUs. Figure 2-4: *NO_x Emission Trend for Texas EGUs from 1995 through 2011* shows the NO_x emission reductions from EGUs from 1995 through 2011.

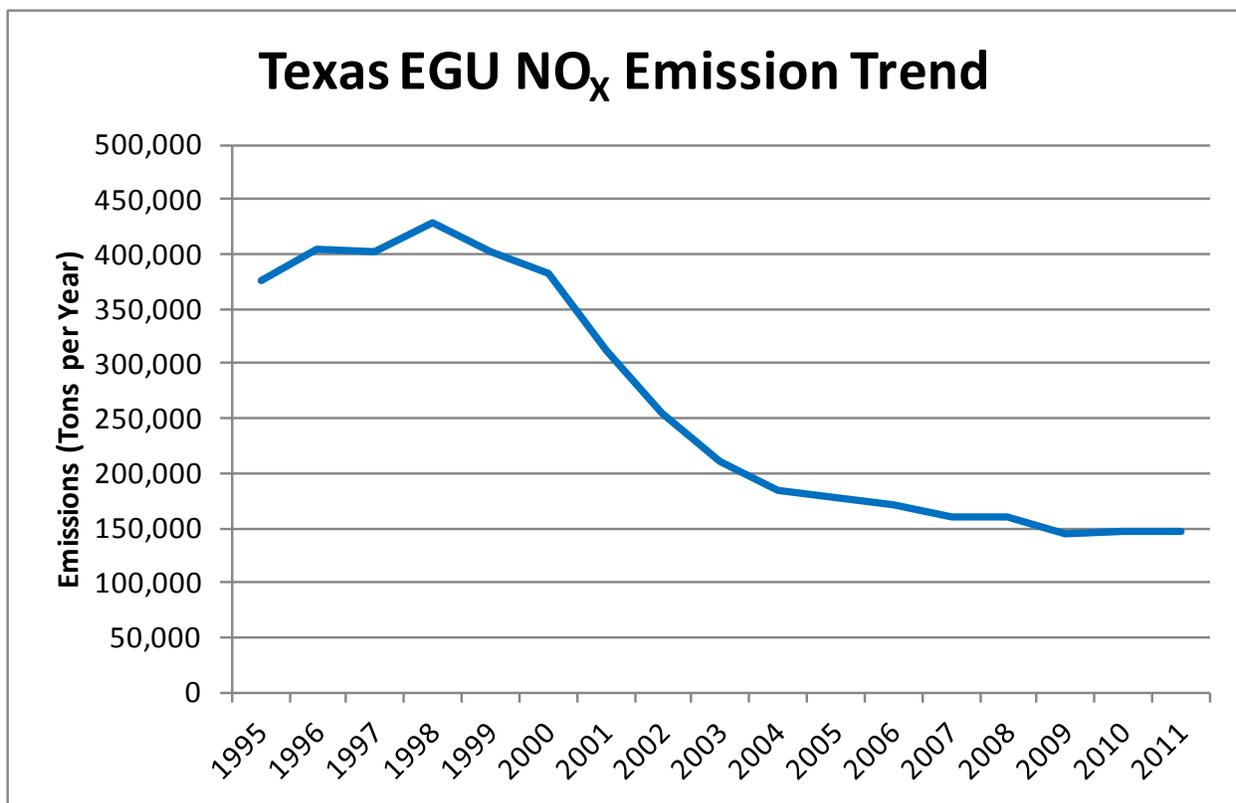


Figure 2-4: NO_x Emission Trend for Texas EGUs from 1995 through 2011

2.2.2.1 CAIR and Cross-State Air Pollution Rule (CSAPR)

In March 2005, the EPA issued CAIR to address EGU emissions that transport from one state to another. The rule incorporates the use of three cap and trade programs to reduce sulfur dioxide (SO₂) and NO_x: the ozone-season NO_x trading program, the annual NO_x trading program, and the annual SO₂ trading program.

Texas was not included in the ozone season NO_x program but was included for the annual NO_x and SO₂ programs. As such, Texas must make necessary reductions in annual SO₂ and NO_x emissions from new and existing EGUs to demonstrate that emissions from Texas do not contribute to nonattainment or interfere with maintenance of the PM_{2.5} NAAQS in another state. CAIR consists of two phases for implementing necessary NO_x and SO₂ reductions. Phase I addresses required reductions from 2009 through 2014. Phase II addresses reductions in 2015 and thereafter. In July 2006, the TCEQ adopted a SIP revision to address how the state would meet the emissions allowance allocation budgets for NO_x and SO₂ established by the EPA to meet the federal obligations under CAIR. The TCEQ adopted a second CAIR-related SIP revision in February 2010. This revision incorporated various federal rule revisions that the EPA had promulgated since the TCEQ’s initial submittal. It also incorporated revisions to 30 Texas Administrative Code (TAC), Chapter 101 resulting from legislation during the 80th Texas Legislature.

A December 2008 court decision found flaws in CAIR, but kept CAIR requirements in place temporarily while directing the EPA to issue a replacement rule. In July 2011, the EPA finalized CSAPR to meet FCAA requirements and respond to the court’s order to issue a replacement

program. Texas is included in CSAPR for ozone season NO_x, annual NO_x, and annual SO₂ due to the EPA's determination that Texas significantly contributes to nonattainment or interferes with maintenance of the 1997 eight-hour ozone NAAQS and the 1997 and 2006 PM_{2.5} NAAQS in other states. As a result of the numerous EGU emission reduction strategies already in place in Texas, as described in Section 2.2.2: *Emissions Reductions from EGUs*, the annual and ozone season NO_x reduction requirements from CSAPR are fairly small. The CSAPR requires an approximate 7% reduction in annual NO_x emissions and less than 5% reduction in ozone season NO_x emissions.

However, ongoing federal litigation has put CSAPR on hold. On December 31, 2011 the United States District Court of Appeals for the D.C. Circuit issued a stay of CSAPR pending judicial review. In its stay order, the court also directed the EPA to continue to implement CAIR while the case is under review. Therefore, all the requirements in CAIR are federally enforceable and all sources that are covered by CAIR must continue to comply with the requirements of the program.

2.2.2.2 Utility Electric Generation in Ozone Nonattainment Areas

The rules in 30 TAC Chapter 117, Subchapter C establish NO_x emission specifications for utility electric generation for each ozone nonattainment area in Texas. These rules apply to each electric generating facility that generates electric energy for compensation, or are owned or operated by a municipality or Public Utility Commission of Texas (PUCT) regulated utility or any of its successors, regardless of whether the successor is a municipality or is regulated by the PUCT.

In the HGB area, the owner or operator of each affected utility boiler, auxiliary steam boiler, or stationary gas turbine must demonstrate compliance with the NO_x emission specifications through a system cap and participation in the HGB area Mass Emissions Cap and Trade (MECT) Program. Affected sources were required to comply with the MECT Program rules beginning January 1, 2002, and comply with the system cap requirements by March 31, 2004. Additional information about the MECT Program is available in Section 2.2.3.1: *HGB Area MECT Program*.

In the DFW area, each utility boiler that is part of a large system must meet a NO_x emission rate of 0.033 pound per million British thermal units (lb/MMBtu) heat input, and each utility boiler that is part of a small system must meet a NO_x emission rate of 0.06 lb/MMBtu heat input. Compliance with the NO_x emission rates may be demonstrated on a daily average basis, a system-wide heat input weighted average basis for utility boilers that are part of a large system, or through the use of emission credits. Affected sources were required to comply with the rules by March 1, 2009.

In the Beaumont-Port Arthur (BPA) 1997 eight-hour ozone maintenance area, each utility boiler must meet a NO_x emission rate of 0.10 lb/MMBtu heat input. Compliance with the NO_x emission rates must be demonstrated on a daily average, through the use of a system cap, or through the use of emission credits. Affected sources were required to comply with the rules by May 1, 2005.

2.2.2.3 Utility Electric Generation in East and Central Texas

The rules in 30 TAC Chapter 117, Subchapter E, Division 1 limit NO_x emissions from utility electric generation in Atascosa, Bastrop, Bexar, Brazos, Calhoun, Cherokee, Fannin, Fayette, Freestone, Goliad, Gregg, Grimes, Harrison, Henderson, Hood, Hunt, Lamar, Limestone, Marion, McLennan, Milam, Morris, Nueces, Parker, Red River, Robertson, Rusk, Titus, Travis,

Victoria, or Wharton Counties. The rules apply to each utility electric power boiler and stationary gas turbine (including duct burners used in turbine exhaust ducts) that generate electric energy for compensation; is owned by an electric cooperative, independent power producer, municipality, river authority, or public utility; and was placed into service before December 31, 1995. Utility electric power boilers must meet a NO_x emission rate of 0.14 lb/MMBtu for gas-fired units and 0.165 lb/MMBtu for coal-fired units. Stationary gas turbines (including duct burners used in turbine exhaust ducts) must meet an annual average NO_x emission rate of 0.14 lb/MMBtu for units subject to Texas Utilities Code (TUC), §39.264 (except §39.264(i)) or 0.15 lb/MMBtu for units not subject to TUC, §39.264 and units designated in accordance with TUC, §39.264(i). Compliance with the NO_x emission rates is based on average heat input for a calendar year. Affected sources were required to comply with the rules by May 1, 2005.

2.2.2.4 Senate Bill 7 (76th Texas Legislature)

Senate Bill 7, 76th Texas Legislature session, requires a cap and trade program for previously grandfathered or unpermitted, electric generating facilities and other electric generating facilities that choose to participate in the cap and trade program. The NO_x allowances were determined using a NO_x rate of 0.14 lb NO_x/MMBtu for grandfathered facilities in the East Texas region and a NO_x rate of 0.195 lb NO_x/MMBtu for the grandfathered facilities in the West Texas and El Paso regions.

The first control period for this program began on May 1, 2003. The last revision on this rule package, 30 TAC Chapter 101, Subchapter H, Division 2, was published in the *Texas Register* on September 10, 1999, and the public comment period ended on October 11, 1999. The adopted rule package was published in the *Texas Register* on January 7, 2000. The effective date of the rule package was January 11, 2000.

2.2.3 Emission Reductions from Other Sources

Texas has implemented numerous control measures to reduce ozone precursor emissions from a variety of sources. These measures have resulted in significant decreases in eight-hour ozone design values from 1990 through 2010. This section details some of the controls for major stationary sources and regional controls implemented as part of the state's strategy to address the one-hour and 1997 eight-hour ozone standards.

2.2.3.1 HGB Area MECT Program

The MECT Program rules in 30 TAC Chapter 101, Subchapter H, Division 3 established a mandatory annual NO_x emission cap on all existing stationary sources in the HGB area that emit at least 10 tons per year (tpy) of NO_x and are subject to the NO_x emission specifications in 30 TAC Chapter 117, Subchapter B, Division 3 and Subchapter C, Division 3. Affected units include: utility boilers, auxiliary steam boilers, or stationary gas turbines; industrial, commercial, or institutional boilers and process heaters; stationary gas turbines; stationary internal combustion engines; fluid catalytic cracking units (including carbon monoxide boilers, carbon monoxide furnaces, and catalyst regenerator vents); boilers and industrial furnaces that were regulated as existing facilities by the EPA under 40 Code of Federal Regulations Part 266, Subpart H (as in effect on June 9, 1993); duct burners used in turbine exhaust ducts; pulping liquor recovery furnaces; lime kilns; lightweight aggregate kilns; heat treating furnaces and reheat furnaces; magnesium chloride fluidized bed dryers; and incinerators.

The MECT program cap is enforced by the allocation, trading, and banking of allowances. An allowance is the equivalent of one ton of NO_x emissions. The MECT program cap was implemented on January 1, 2002, at historical emission levels, with mandatory NO_x reductions

increasing over time until achieving the final cap by April 1, 2007. All new or modified sources in the HGB area must obtain unused allowances from other sources already participating in the MECT program to offset any increased NO_x emissions.

2.2.3.2 Cement Kilns

The rules in 30 TAC Chapter 117, Subchapter E, Division 1 limit NO_x emissions from cement kilns in Bexar, Comal, Ellis, Hays, and McLennan Counties. The rules require cement kilns in Bexar, Comal, Hays, and McLennan Counties to reduce NO_x emissions 30% below 1996 levels or to meet a NO_x emissions cap of 6.0 pounds of NO_x per ton of cement clinker produced (lb/ton of clinker) for wet kilns; 5.1 lb/ton of clinker for dry kilns; 3.8 lb/ton of clinker for preheater kilns; and 2.8 lb/ton of clinker for preheater-precalciner or precalciner kilns. Affected sources were required to comply with the rules by May 1, 2005.

These rules also require cement kilns in Ellis County to meet a NO_x emission ozone-season cap based on kiln configuration and production during calendar years 2003 through 2005. The cap limits NO_x emissions from dry kilns to no more than 1.7 lb/ton of clinker and limits NO_x emissions from wet kilns to no more than 3.4 lb/ton of clinker. Emissions from any kilns installed after 2005 must be offset with emission reductions at the site or through emission reduction credits. Affected sources were required to comply with the rules by March 1, 2009. The Ellis County cement kiln cap is part of the May 2007 DFW AD SIP Revision and the TCEQ estimates that implementation of these rules results in approximately 9.69 tons per day NO_x emission reductions.

2.2.3.3 East Texas Engines

The rules in 30 TAC Chapter 117, Subchapter E, Division 4 limit NO_x emissions from certain engines located in Anderson, Brazos, Burleson, Camp, Cass, Cherokee, Franklin, Freestone, Gregg, Grimes, Harrison, Henderson, Hill, Hopkins, Hunt, Lee, Leon, Limestone, Madison, Marion, Morris, Nacogdoches, Navarro, Panola, Rains, Robertson, Rusk, Shelby, Smith, Titus, Upshur, Van Zandt, and Wood Counties. The rules apply to stationary, gas-fired, reciprocating internal combustion engines rated 240 horsepower (hp) and larger. Rich-burn gas-fired internal combustion engines rated less than 500 hp must limit NO_x emissions to 1.0 grams per horsepower-hour (g/hp-hr). Rich-burn engines rated 500 hp or greater must limit NO_x emissions to 0.60 g/hp-hr for landfill gas-fired engines or 0.05 g/hp-hr for all other rich-burn engines. Affected sources were required to comply with the rules by March 1, 2010.

The East Texas combustion rules reduce NO_x emissions and ozone air pollution transport into the DFW area. While these rules are part of the May 2007 DFW AD SIP Revision for the 1997 eight-hour ozone NAAQS, the Northeast Texas Early Action Compact area in east Texas also benefits from NO_x reductions resulting from the rules. Using photochemical modeling sensitivity studies, the TCEQ estimated that implementation of the rules results in an overall reduction of approximately 22.4 tons per day of NO_x emissions in the 33 counties subject to the rules by March 1, 2010. The TCEQ estimated the rules benefit the DFW area by reducing ozone by an average of 0.1 to 0.2 parts per billion.

2.2.3.4 HGB Area Highly Reactive VOC (HRVOC) Rules and HRVOC Cap and Trade (HECT) Program

The HRVOC rules in 30 TAC Chapter 115, Subchapter H are performance-based, emphasizing monitoring, recordkeeping, reporting, and enforcement rather than establishing individual unit emission rates. The rules apply to HRVOC emissions from flares, process vents, cooling towers, and fugitive emission sources. In addition to the monitoring requirements, affected sources in Harris County must meet an annual HRVOC emission cap and a site-wide short-term HRVOC

limit of 1,200 lb/hour from any flare, vent, pressure relief valve, cooling tower, or any combination. Affected sources in Harris County must demonstrate compliance with these HRVOC emission limits through participation in the HECT Program.

The HECT Program rules in 30 TAC Chapter 101, Subchapter H, Division 6 establish a mandatory annual HRVOC emission cap on all existing stationary sources in Harris County that emit at least 10 tpy of HRVOC emissions and are subject to the HRVOC rules in 30 TAC Chapter 115, Subchapter H, Divisions 1 and 2. Affected sources include vent gas streams, flares, and cooling tower heat exchange systems. The HECT program cap is enforced by the allocation, trading, and banking of allowances. An allowance is the equivalent of one ton of HRVOC emissions. The HECT program cap was implemented on January 1, 2007, at historical emission levels. All new or modified sources in the HGB area must obtain unused allowances from other sources already participating in the HECT program to offset any increased HRVOC emissions.

The HECT program was revised in 2009 to reduce the total HECT cap by 25% and revise the HRVOC allocation methodology to address inequities from the initial allocation. An initial 10% reduction of the existing available cap of 3,451.5 tons will occur with the 2014 calendar-year control period. The available cap will then be reduced in 5% increments at the start of each calendar-year control period for 2015, 2016, and 2017. Photochemical modeling analysis demonstrates that a 25% reduction of the total HRVOC cap in Harris County will advance attainment of the 1997 eight-hour ozone NAAQS by reducing the future 2018 ozone design values at all HGB monitors by an average of 0.13 parts per billion.

2.2.4 1997 Eight-Hour Ozone SIP Revisions Adopted Since 2008

Texas has 1997 eight-hour ozone SIP revisions in place for the HGB area and the DFW area, as well as maintenance plans for BPA, Victoria (VIC), and El Paso. EAC SIP revisions for the 1997 eight-hour ozone standard were developed for the Austin-Round Rock (ARR) area, the Northeast Texas (NETX) area, and the San Antonio area. In addition to these SIP revisions, a 1997 Eight-Hour Ozone Flex Program is in place for ARR and Corpus Christi. One-Hour Ozone SIP revisions were developed for HGB, DFW, BPA, NETX, and the Central and East Texas Region, as well as One-Hour Ozone Flexible Agreements for Austin-San Marcos and Corpus Christi.

Texas' 1997 eight-hour ozone SIP revisions and one-hour ozone SIP revisions adopted prior to 2008 were described in detail in the previous ozone transport SIP revision to address the 1997 eight-hour ozone standard, adopted on April 16, 2008. The 1997 eight-hour ozone transport SIP revision and all other Texas SIP revisions are available on the [Texas SIP Revisions](http://www.tceq.texas.gov/airquality/sip/siplans.html) Web page (<http://www.tceq.texas.gov/airquality/sip/siplans.html>).

Since 2008, Texas has adopted several additional SIP revisions to address the 1997 eight-hour ozone standard in HGB, DFW, BPA, and VIC. An Eight-Hour Ozone Flex Plan was also developed for the ARR area. These latest SIP revisions and plans are detailed in this section.

2.2.4.1 HGB 1997 Eight-Hour Ozone SIP Revisions

On March 10, 2010, the commission adopted two revisions to the Texas SIP for the HGB severe nonattainment area. The HGB AD SIP Revision for the 1997 Eight-Hour Ozone Standard includes a photochemical modeling analysis and a weight of evidence analysis to demonstrate attainment of the 1997 eight-hour ozone NAAQS by the June 15, 2019, deadline. This SIP revision also includes a motor vehicle emissions budget (MVEB), a VOC and NO_x Reasonably Available Control Technology (RACT) analysis, a Reasonably Available Control Measures (RACM) analysis, and a contingency plan. In addition, the AD SIP revision incorporated

revisions to 30 TAC Chapters 101 and 115, also adopted on March 10, 2010, which include the MECT Program Cap Integrity, the HECT Program Cap Reduction and Allowance Reallocation, and the VOC Control Techniques Guidelines (CTG) Update.

The HGB Reasonable Further Progress (RFP) SIP Revision for the 1997 Eight-Hour Ozone Standard, as required by the EPA, demonstrates that an 18% emissions reduction requirement will be met for the analysis period between 2002 through 2008 and an average of 3% per year emissions reduction between each of the milestone years 2008, 2011, 2014, 2017, and 2018. This SIP revision establishes baseline emission levels, calculates reduction targets, identifies control strategies to meet emission target levels, and tracks actual emission reductions against established emissions growth. This revision also includes an MVEB for each milestone year and a contingency plan.

On December 7, 2011, the commission adopted the HGB RACT Analysis Update SIP Revision for the 1997 Eight-Hour Ozone Standard to include CTG documents that were not addressed in the March 2010 HGB AD SIP Revision for the 1997 Eight-Hour Ozone Standard. This SIP revision also incorporated CTG-related rulemaking for the HGB area.

2.2.4.2 DFW 1997 Eight Hour Ozone SIP Revisions

On July 14, 2008, the EPA proposed conditional approval (73 FR 40203) of the May 2007 DFW AD SIP Revision, providing that final conditional approval was contingent upon Texas adopting and submitting to the EPA an approvable contingency plan SIP revision for the DFW area. The Contingency Plan SIP Revision was adopted by the commission on November 5, 2008, and submitted to the EPA on November 15, 2008. The Contingency Plan SIP revision identified measures to satisfy the EPA's 3% reduction contingency requirement for 2010 for the DFW area, to apply in the event that the DFW area failed to meet the 1997 eight-hour ozone standard by the attainment deadline. On January 14, 2009, the EPA published final conditional approval of the DFW AD SIP revision (74 FR 1903).

A condition stipulated by the EPA for final approval of the May 2007 DFW AD SIP Revision was that the TCEQ adopt and submit rule and SIP revisions to implement an enforceable mechanism to limit the use of Discrete Emissions Reduction Credits (DERC) in the DFW area by March 1, 2009. The DERC Program SIP Revision incorporated rulemaking that amends 30 TAC Chapter 101, Subchapter H, Division 4, Discrete Emission Credit Banking and Trading, to limit DERC use in the DFW area.

On March 10, 2010, the commission adopted the DFW RACT Update, 30 TAC Chapter 117 Rule Revision Noninterference Demonstration, and Modified Failure-to-Attain Contingency Plan SIP Revision. The RACT Update SIP Revision incorporated several actions adopted by the TCEQ, including 30 TAC Chapter 115 and Chapter 117 rule revisions, and supplemented the 1997 eight-hour ozone AD by demonstrating that the revised Chapter 117 rule does not interfere with the DFW AD SIP Revision.

On December 7, 2011, the commission adopted two revisions to the Texas SIP for the DFW serious nonattainment area. The DFW AD SIP revision provides photochemical modeling and weight of evidence analyses to demonstrate that the DFW nine-county serious nonattainment area will attain the 1997 eight-hour ozone standard by the June 15, 2013, attainment deadline. The AD SIP revision includes a RACT analysis, a RACM analysis, a MVEB for 2012, and a contingency plan. Concurrent with this SIP revision, the commission adopted revisions to 30 TAC Chapter 115 into the Texas SIP.

The DFW RFP SIP revision provides analyses of incremental reductions in ozone precursors, NO_x and VOC, from a 2002 base year out to attainment of the 1997 eight-hour ozone standard as well as updated emissions inventories and MVEBs for the 2011 and 2012 milestone years.

2.2.4.3 BPA 1997 Eight-Hour Ozone Redesignation to Attainment and Maintenance Plan

On December 10, 2008, the commission adopted the BPA Redesignation Request and Maintenance Plan SIP revision for the 1997 eight-hour ozone standard. On October 20, 2010, the EPA published a final rule in the *Federal Register* (75 FR 64675), effective November 19, 2010, approving the redesignation request and maintenance plan and finalizing a determination that the BPA area is in attainment of the revoked one-hour ozone standard. With redesignation to attainment for the 1997 eight-hour ozone standard and a determination of attainment for the one-hour ozone standard, no new ozone reduction strategies will have to be developed for either standard as long as the area continues to monitor ozone levels below the 1997 eight-hour ozone standard; however, current strategies to reduce ozone in the BPA area will remain in place.

2.2.4.4 VIC 1997 Eight-Hour Ozone Contingency Plan SIP Revision

In early 2009, EPA Region 6 staff informed the TCEQ that to approve the Victoria County 1997 Eight-Hour Ozone Maintenance Plan adopted in March 2007, the contingency plan had to be revised to contain an enforceable commitment to adopt and implement the contingency measures once they are triggered. On July 28, 2010, the commission adopted the Contingency Plan SIP Revision for the VIC area.

2.2.4.5 ARR 1997 Eight-Hour Ozone Flex Plan

On June 18, 2008, the commission approved the Austin-Round Rock Eight-Hour Ozone Flex Plan and Memorandum of Agreement. Stakeholders involved in this plan are Bastrop, Caldwell, Hays, Travis, and Williamson Counties; the cities of Austin, Bastrop, Elgin, Lockhart, Luling, Round Rock and San Marcos; the TCEQ; and the EPA. The Eight-Hour Ozone Flex program is one in a series of regional initiatives and builds on the region's previous plans: the One-Hour Ozone Flex program and the EAC. These voluntary initiatives allow the region to address regional ozone problems proactively to maintain the 1997 eight-hour ozone standard.

2.3 CONTROL STRATEGY CONCLUSIONS

Overall, monitoring data do not suggest that emissions from Texas contribute significantly to nonattainment or interfere with maintenance of the 2008 eight-hour ozone NAAQS for areas in any other state. Additionally, Texas has numerous control measures in place to address ozone precursor emissions and all are federally enforceable through SIP revisions. These measures have resulted in significant decreases in eight-hour ozone design values from 1990 through 2010, with much of the decreases occurring from 2000 through 2010. With implementation of the 2008 ozone standard, decreases in design values are expected to continue.

CHAPTER 3: FUTURE REVISIONS TO THE NATIONAL AMBIENT AIR QUALITY STANDARDS (NAAQS)

Federal Clean Air Act (FCAA), §110(a)(1) requires states to submit state implementation plans within three years after the promulgation of new or revised NAAQS to meet the requirements of FCAA, §110(a)(2), including FCAA, §110(a)(2)(D)(i)(I), relating to interstate transport. Therefore, if the NAAQS are revised in the future, the Texas Commission on Environmental Quality will need to take the adequate steps relating to the interstate transport of air pollution.